

Canadian Computer Wholesaler

THE MONTHLY FOR RESELLERS

November 1996 Vol.2 No.7

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CONTENTS

November 1996

Vol.2 No.7

DEPARTMENT

Calendar

10

Industry Flash

21

Canada Watch

23

Asiascape

47

Sourcing Directory

52

People

61

Collected Numbers

62

Surf our web site

<http://www.cowmag.com>

BUSINESS

To Build or Not to Build

By Gers Dovers

12

OPERATING SYSTEMS

How to Add Value to Operating Systems ...

By Paul Lane

16

Motorola Licenses Apple OS — Will Clone Macs ...

By Ed Trapani

16

INTERNET

The Domain Name Challenge

By Sean Livingston

26

LAB TEST

Color Ink-Jets

Clean, Crisp and Cheap?

By Chris Fisher, Steve Bolinda and Tim Bragham-Walker

28

STORAGE

The Drive of the Month Club

By Jeff Evers

40

TRAINING

The Training Quandary

By Paul Weinberg

44

NETWORKING

Laminate 7.0 — More Satisfying, Less Filing

By Allen Zeman

42

MARKET OUTLOOK

Analysts Predict Growth in Technology Market

By Tom Kline

50

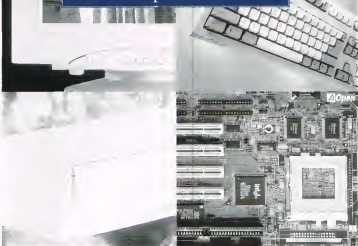
THE PUNDIT

Walkabout Highlights Differing Reseller Models

By Graeme Bennett

58

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Who Is Your Customer?



Know your customer — it's one of the first rules of business. Yet, it's ever so universal in truly identifying and understanding your clientele will enable you to provide the right products and services, and will yield a host of satisfied, loyal patrons.

Shopping for a home computer recently, I found myself with a rather perplexing question (Not that that should have surprised me Christmas shopping, for example, is never complete until we've carefully examined and compared each item in every store in at least three different shopping malls. I kid you not.)

In any event, I quickly saw he wasn't going to be satisfied with any old off-the-shelf system. Rather he had a very specific list he wanted: an Intel Pentium processor, an ATI graphics card, a Sony-manufactured monitor, a Microsoft ergonomic keyboard — etc., etc. And, all along the process, he wanted to be able to talk to a knowledgeable, technically oriented salesperson about the relative merits of each component option.

And so he is. Whether a home computer picks up a hot off-the-shelf, commoditized, particular configuration from their retailer or buys the pieces to assemble their own PC (thank goodness he didn't try that — it's a major purchase decision).

It's even more so for business customers — as they're often talking about multiple systems that will be used to run the business of their companies. Moreover, they're faced with technical concerns in compatibility, connectivity, standardization and security.

What's The Point?

The point is, you need to be able to meet the needs of your particular targeted customer audience — whatever those are. And, you've got to do this within the cost-conscious, competitive market-place that is today's reality.

In this issue of *Canadian Computer Wholesaler*, we address a number of topics pertinent to the subject of having a business focus — and properly equipping your company for it.

In "Walkabout Highlights Differing Reseller Models" (page 38) columnist Graeme Barnett examines some of the various business models popular among Canadian and U.S. resellers — all providing various levels of service offerings.

In "To Build Or Not To Build" (page 12), author Gary Davies analyzes the strategy of resellers who are assembling and configuring systems for their customers. Indeed, as name-brand PCs have dropped in price, it is no longer easy to offer substantial discounts on no-name or house-branded PCs.

Yet, as evidenced by the story of my boss' band — there are at least some users who want to play a bigger role in deciding the make-up of their systems. But meanwhile, certain distributors are offering configuration services — positioning resellers they can be reduced costs by outsourcing that behind-the-scenes work.

"The Training Quandary," by Paul Monahan (page 46), discusses the pros and cons of investing your dollars in paying for what can be rather expensive staff training and certification. Obviously we're all struggling to keep up with the latest technology advances — yet the vendor-sponsored training and certification programs on the market can be time-consuming, costly and may not always meet all of your needs.

Certainly you should be vocal to your suppliers about what you expect from them on the training front. As well, a number of vendors and distributors alike regularly offer free product training seminars — make an effort to take advantage of those. Give their feedback — or what is useful and what is not. After all — it is that simple: it's you who's the customer. And the customer needs to be properly serviced, right?

Putting It Together

When it's all said and done — it is up to you to build a business model that will reap a solid customer base which values and respects your services while allowing you an opportunity for a decent profit.

Maybe it's time to re-evaluate your position against that premise. Do you need to be more flexible in the types of configuration and services you supply to your customers? Or, conversely if brand-name systems and/or distributor configuration services benefit your needs — perhaps, your resources are better spent on increasing staff and increasing marketing efforts.

The training issue isn't it — while everyone representing your operation should have a basic level of technical knowledge, are you trying to market a particular expertise to your clients? If so, are you investing in sufficient staff training to truly back up those claims? If you are, don't forget to follow up your investment by making a big deal out of the skills that you have, display your credentials prominently in your stockroom, your offices and in your marketing materials.)

What Do You Think?

As always, we'd love to hear from you. What are your thoughts on our magazine, the issues we address and the industry in general? Send us a letter, a fax or an E-mail with your comments.

Meanwhile, watch out for that special of course. He's out shopping for more RAM and has some questions.

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Disney model heralds change

Entertainment software may see evolving channels and packaging



"How would you like a free trip to Disneyland?"

That is what the lady from Disney Interactive said when I was invited down to Anaheim, Calif. for a conference recently. It sounded like an invitation too good to resist. In reality,

I never made it past the game area. Disneyland having to satisfy itself with saying in the Disneyland Hotel (right next to the Pabst Kingdom) it was so full an interesting trip on a number of levels — and I saw several implications for the reseller channel.

Like it or not, Disney is a large market force in any industry it plays in. Disney Interactive has apparently become quite successful since its launch two years ago. Disney has since launched more than 30 new PC titles — most of them across platforms. Mac and Windows. In 1999, Disney claimed to have live of the top selling children's CD-ROMs. In 1998, the company has four out of the top five positions on the children's software charts with titles such as *Tiny Toon Adventures*, *Winnie the Pooh* and *The Lion King Activity Center*. (Disney Interactive's products are distributed in Canada by BVA Video Ltd. and Borenscope. Check out Disney on-line at www.disney.com.)

One of the product lines that Disney Interactive was touting at that event was called *Hot Shots*. This product line is a harbinger of things to come on at least three levels.

Packaging

The first level of change is the size of packaging. Many customers myself included, often notice the bulky boxes that comes with most entertainment software. I call it the "big empty box" syndrome. You buy a package for \$40 to \$50, take it home, unpack it, and find that it consists of a CD-ROM jewel case and a registration card.

Hot Shots is Disney's answer to this problem with a package size that is about the size of a video cassette, but about half as thick. It is too big for a shoplifter to pocket, but not so big as to irritate consumers. I think it is a great size and should appeal to retailers as well, because it won't take as much shelf space. If I walk through an average well-stocked computer store these days, I come often than not restless and putting the computer game boxes with the spines out because of a shortage of shelf space. Disney's new attractive size should help overcome. With the promised coming of DVD for music, computer games and movies in the next year or so, I hope this packaging size becomes an industry standard.

Price

The second level of change is the price point. In this case with *Hot Shots*, that's a low than \$20 price target for a software package with about a 30 per cent margin for resellers. For now, these *Hot Shots* games are just pullouts from a larger game package. For example, if Disney does a \$50 to \$60 five game CD, it might include made in 10 games within the CD. The "single-price" *Hot Shots* package would pull out one of these games and make it a stand alone.

I had a discussion with a couple of marketing managers, who agreed with me that there is a big price barrier on many games. But the *Hot Shots* line is designed to allow consumers to buy without really thinking about it.

However, I would suggest Disney should consider bringing the overall price point down for the entire *Hot Shots* right game bundle to under the \$20 price point. My theory is that the company would sell not twice as many games, but three times as many. Many more people would be enabled to buy the games. Disney's end of protection on a software package is so low that once the development costs are amortized, they would be profitable even at the lower price point and sell more units.

The video industry went through this phase a number of years ago now. Initially they used to sell movies for \$30. All but a few consumers rejected this price point. When they brought it down into the \$20 range, it became a no-brainer for many more people. I believe that this will happen in the computer/entertainment industry as well. The marketplace that companies like Nintendo and Sega have had over the video game has made the pricing infinitely less. With many more companies entering the market for PC games, I believe it is only a matter of time before these prices drop.

Target Locations

The third intention I noted is where Disney Interactive targets its games for reselling. Although the company has no plans to abandon the traditional computer stores, list of main checkout locations to sell these products include Wal-Mart and Price Club — venues not traditionally associated with computer game sales. They plan to put these next in the video retail racks in such stores. This represents a shift back to more traditional store channels for computer games. This is both a positive sign, because it heralds the increasing consumer acceptance of computers, and a challenge for traditional computer retailers, who now have yet another player in computer space.

Canadian angle

There is even a Canadian angle to the Disney story. The company recently bought the defunct Skywalker Woods computer games development studio in Victoria and plans to develop interactive titles there. On the other side of the country, Disney is harvesting Sherwood College grads in work in their animation projects both in Canada and in California. On the negative side, one Canadian writer with me on the trip suggested it was a real pity a huge drain of Canadian animation talent heading for Disney. But, Disney is developing a Canadian studio for animation — at this point primarily for clean-up of feature films. According to Disney Canada, it is the future the Canadian studios will be holding on larger jobs.

Enjoy the issue! **GGG**

Douglen Alder
Publisher

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Comdex	59
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Comtronic	5
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Empire Computer Corp.	1
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Imagix Technology Inc.	69
9051-261-1900	
Lance 2000	10
9051-477-6966	
Lapre Marketing	13
9041-244-7758	
PC	15
1-888-PE-HOLPS	
Pre-Data	9
1-800-567-3274	
Pre-Solve	24
9051-415-8968	
QDI Computer (Canada)	13
9051-940-8527	
Ready Computer Inc.	19
9051-270-7618	
Samsung	63
9051-940-3600	
Samsung	18
9051-940-3600	
Scopex Technologies Inc.	20, 64
1-800-788-2876	
SONG	29
1-800-677-SONG	
Sharp	9
9051-990-2190	
SRIC Research Inc.	8
9051-595-1254	
Supernova	3
1-800-949-4967	
Tecan Information	43
Technology Trade Show	
1514-844-8899	
1604-682-9501	
(416) 363-9946	
TIC Datacom Canada	7
9041-606-6288	
TIF Electronic (Canada)	65
9041-279-6320	
Ultron	25
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Customer found on-line PC-buying a headache

On-line shopping is a wonderful thing. No need to visit a store in person, just point and click. Almost everything you can think of is for sale over the Internet. Sounds great, eh? Well, things can go wrong and believe me they do.

Recently I decided to upgrade everything on my computer (basically this means buying a new computer). So I checked out the Shopping Mall on CompuServe — lots of companies selling their computers in a secure environment.

So I pick one that sells the computer I want. [An American on-line computer store], winner of an PC World best-buy award, as the 1-800 number tells me every time I called — and I did have to call. The price is reasonable, so I put the order in my electronic shopping cart and head for the checkout. Fill in the appropriate information and my order is sent off to Texas where they begin assembling my computer. A week later I am beginning to wonder how long it will take, so I call them on their 1-800 number.

After a bit of a run-around I am connected to the salesperson who handles international sales via CompuServe.

He tells me that my computer has not been shipped; it takes seven working days to assemble and then I can expect delivery in five working days. Great! I am diving in anticipation of my new computer.

A week later I still do not have it, so I call again. Well it was shipped, but the complete address (apart from customer's given to the shipping company, Okay, fine, mistakes happen).

I am philosophical about it. I change the courier company to one that has been looking at the label and now my computer should be on its way and the package

back to the depot where an inquiry will be sent back to the company about the address.

I was thinking it would just take a phone call and a day or two for the next attempt at delivery. How wrong I was. After waiting another week, I call (the on-line store) again. What is happening, I ask? The sales rep. has sent an E-mail to his shipping department advising them of the corrected address, but has not received a reply yet.

Why not, I ask? Well they can't find the shipping number because of computer problems. Without the shipping number they can't tell the courier company what parcel they are talking about.

My head spins. I call every day. Last week, asking when I will receive my new computer. No progress. I feel assured that something so simple should be so hard.

After the fourth week I give up. I cancel the order.

Defeated, I walk to the computer store to buy my new computer.

David Jeyaraj

71361.3205@compuserve.com

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Twitter Inc. has announced its second 70% performance share bonus payout. It's worth noting that the company's 2014 revenue was \$1.1 billion, up from \$800 million in 2013.



TO BUILD OR NOT TO BUILD?



THIS IS THE QUESTION RESELLERS ACROSS THE COUNTRY HAVE BEEN ASKING THEMSELVES FOR THE LAST YEAR

by Gary Davies

When Bart Ulrich started Sector Computer Systems in Calgary a couple of years back, he knew he would need to hire some technicians to build systems. After all, he said to himself — there's more to that resale game than just, well — reselling.

"Building systems is a major part of our business," Ulrich says. "People don't always want run-of-the-mill. Sometimes they want something a little bit different." Ulrich says specialty bulk systems account for 50 to 60 per cent of his business, and he keeps four technicians on staff to serve that purpose.

Shif Quaden is of the same school as Ulrich. The owner of Ascot Business Systems says his Calgary company has been in the building business since 1992. "We, of course, sell name brands as well," Quaden says, "but built systems are quite popular. Sometimes we get requests for special configurations that are not in brand name systems."

But to say industry analyst Bob Prichard disagrees with these resellers would be an understatement. "I think resellers who are still assembling their own systems are wasting their time and money. There's just no [profit] margin there anymore."

The president of R.J. Prichard & Associates Ltd., in Markham, Ont., says more distributors will now build specialty config-

ured systems for resellers — a server he says they should be taking full advantage of. "They will configure it and load the required software prior to shipping it," Prichard says. This configuration service has been offered by the majority of distributors for the last 18 months.

But Ulrich isn't so sold on the idea. "If you ask [the distributor] for something specific it's usually a hassle. And sometimes they don't have what you need."

Distributor Configuration Services

It hasn't taken long for most distributors to jump on the configuration centre bandwagon, but arguments persist as to how far distributors should take the idea. Ingram Micro Inc. (Canada) has a configuration centre in place, but it only handles low-volume, high-end products.

"There are some resellers out there who use this as a distribution strategy to undercut them," says Andrew Kestin, senior vice-president of purchasing and products for Ingram Micro. "We have to remember the distributor exists because it has successful resellers as customers." Ingram Micro does offer a configuration centre for every one of its products in the United States, but a similar centre is not in the offing for Canada. "At least not until our customers ask for it," says Kestin.

Distributor Globefix Corp. joined the configuration centre game this past March. But Mary Anne Goss, Globefix's director of marketing, defends her company's decision to enter new territory. "We're not taking business away from resellers," Goss says. "We're offering this as a value added service to our customers."

This service is known as the Peak Performance Configuration Center, based in the company's Mississauga, Ont. office. The centre is staffed by one manager and, depending on the number of orders, can house anywhere from one to 10 technicians. "Its purpose is to assist a Globefix customer who is a VAR," Goss said. "Maybe it's coming down to the crunch time and they need some help. Or perhaps it's vacation time and they need some extra hands." Goss says it's up to the VAR to decide which system is more cost-effective — letting Globefix handle it or hiring a couple of technicians.

Sharon Spring, vice-president of marketing at Mervel Canada Inc., couldn't agree more, which is why her company set up a configuration centre last year. "It's a value-added service to the reseller and it's totally their call as to whether they would like to use our servers or not," Spring said. "The reseller has to weigh off the benefits of doing it in-house, or giving it to us. It's usually more cost effective to use our service if it's a high-volume order."

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"I think resellers who are still assembling their own systems are wasting their time and money."

— Bob Pritchard

"People don't always want run-of-the-mill. Sometimes they want something a little bit different."

— Bart Ullrich

"I have to look after my customers if I want their business."

— Said Rizk

The reign of U.S. resellers has been out of the building game for the last couple of years, says Glen MacLean, national director of reseller services for Microware. "This game is dis-

tributed as happening much more slowly here in Canada. There seems to be a real reluctance here and I can't see us moving completely to the [U.S.] model for two to three years."

MacLean said resellers should remember they would still be the ones who deal face-to-face with the end user. "All we're doing is trying to take away the costs, we're not trying to forge a relationship with the end user. Resellers need to think about how much they're spending for warehouse space, security that space, the cost of having technicians etc. We can totally eliminate a lot of those costs."

Michael O'Neil, senior vice president for International Data Corp. (Canada) Ltd., says all that the distributors are trying to do is remove a burden from the shoulders of the reseller—if they're smart enough to take advantage of it. "Why would you want to do it yourself if you're the reseller?" O'Neil asks. "Most organizations just don't have the resources they need. It's really a poor return on assets from a reseller's perspective."

Friendly Neighborhood Reseller

Despite such recommendations, Said Rizk has let his resale business on the hope end-users would prefer their specially configured systems be built by their friendly neighborhood reseller. For the last 10 years, 4-Star Computers in Calgary has sold nothing but personally built systems.

"Sometimes we just can't get the product," said Rizk, 4-Star manager. "We have found there is some difficulty getting specific products during the busiest times of the year—like now and at Christmas."

But that's far from the norm. Rizk said noting most customers leave 4-Star Computers happier than when they came in. "Why? Because they treat Rizk and are relieved hardware support is just a short drive down the street," he said.

The problem with distributors is they're usually out of town and they charge a lot," said Rizk, noting when you add the building costs to the shipping costs and handling tag, "the price is just too high for some resellers."

Plus, I have to look after my customers if I want their business. With distributors, if you have any problems it could be 10 days before it's fixed. Here, you usually get same-day service—and you know who you're dealing with." **DEW**

Gary Davies is a journalist based in Calgary with a specialty in high-tech reporting.



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Tough road ahead for Apple

by Edwin Trapanik

The hoopla surrounding the Microsoft introduction of Windows 95 made Aug. 22, 1995, seem like a national holiday. On the other hand, when Apple Computer Inc. announced one month later that it would license its Macintosh personal computer operating system, the announcement was greeted with what some might call a cloud of indifference.

Yet now some of the industry big boys are playing the Mac OS game — as IBM and Motorola Corp. have announced OS licensing agreements with Apple.

But despite the fierce competition for this sector — Mighty Microsoft enjoys overwhelming desktop dominance, Microsoft owns more than 80 per cent of the operating system market, Apple has about nine or 10 per cent, while the others, including IBM's OS/2, share the rest.

By licensing its operating system, Apple, along with IBM and Motorola, (both partners on the Power PC platform), is trying to break the stronghold Microsoft has on the market. It is also a way for Apple to stem its rather several disastrous financial quarters.

Apple has never before combined the manufacture of clones. By keeping its technology proprietary it felt it could maintain quality and reliability. As a result, its prices have been higher than Windows-based computers. The prices for the proposed licensed computers will be below what Apple charges for a comparable product but still more expensive than

How to Add Value to Operating Systems

Are you fully leveraging your opportunities in the OS selling process?

• by Paul Davis •

From the beginning of desktop computing, operating systems have meant headaches for resellers, because they've given end-users grief.

However, they have also delivered resellers opportunities to add value — by taking care of customers and customizing systems for optimum performance.

As Windows 3.x became the operating system most computer users loved to hate, Apple's Mac OS and IBM's Warp struggled to make a dent in the on-the-consumer OS market. Today IBM has all but abandoned the consumer OS market and

some Mac enthusiasts are concerned about the perception that Windows 95 has left them behind.

While Windows NT 4.0 (which emulates the Windows GUI) and IBM's Warp 4 offer users 32-bit processing and greater stability, they run on high-end PCs or workstations that cost more than many consumers want to spend and are targeted primarily at the client/server environment.

So do resellers and OS manufacturers feel OSs in themselves presented value-add opportunities?

Put The First Things First

To minimize post-sale problems, resellers should qualify customers and match the right box and OS with customer needs, according to Jon Schlegelberg, who runs Simply Computing, a Mac retail outlet in Delos, N.C. "We sell not what we want to move but absolutely the best system for the customer." Once he's qualified the customer, Schlegelberg makes sure his systems are "ready to go so customers can plug them in and turn them on when they get home."

Resellers agree the more they can do upfront, the less likely it is that the user will experience problems. "That may be the greatest value you can add, keeping the customer satisfied from the word go," says

Ced Hart of WestWorld Computer Ltd. in Edmonton.

To ensure customers are knowledgeable about operating systems, some resellers offer OS orientation courses. Some, feeling an ounce of prevention equals fewer support calls, run free seminars. Others, like Hall, charge a nominal fee for seminars.

Schlegelberg, however, stopped running seminars but continues to add OS



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**Dealers
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dependent. "Microsoft isn't competitors. Apple will continue to verify that all systems sold with the Mac OS comply with Apple's design requirements."

Along with Apple, Motorola and IBM have made a sizable investment in the PowerPC microprocessor on which the Apple product line is based. If Apple doesn't make a striking comeback, they both lose a considerable chunk of cash even for these giants. Analysts had expected more players on board at this stage and a greater volume of product shipped. "I wouldn't expect any huge arrears to be made over the short term," says George Butler, manager of PC research for International Data Corp. (Canada) Ltd. "By next spring we'll see an increase in sales for the Mac operating system. But I don't expect phenomenal growth rates that will have a significant impact on Microsoft, not even for the five-year forecast that we have."

By being proprietary with its OS for so long, Apple missed the advantage Microsoft and Intel acquired through the hardware and software OEM sub-industry creating demand for their technology. Instead, Apple has been the only one bringing the drive for the Mac OS platform. Through its proprietary status Apple created a tight integration of the software and the hardware, a difficult combination for someone else to crack in order to attain the expertise to build the systems.

Apple's licensing strategy has been to evolve the procedure in stages. Initially, there were a handful of players in the Apple ecosystem who would duplicate the Macintosh system design with a small amount of differentiation. For example, Power Computing, a small mail-order distributor, was formed specifically to clone Macintoshes for as little as US\$1,000.

Next, the IBM and Motorola deals are intended to defend the traditional education and desktop publishing markets — and their reputations and world-wide marketing clout could open the doors to some corporate boardrooms.

value by selling out training video tapes that have "proven to be incredibly popular." He focuses on keeping clients happy from the start by installing fast-breaking updates, freeware virus protection and appropriate printer software. "When you give a little, you get a lot in return from repeat business."

Here's How to Add Value, Mac

While Mac has lost out to Windows in the battle for OS supremacy, Mac resellers are dedicated and opinionated people. "We don't represent the majority of the computer-using population but we get our fair share of the business," says Her.

Taking a poke at "Window" resellers, he says value-added opportunities are difficult to come by for Mac resellers "because everything integrates so seamlessly with the Mac OS." Still, he adds value by offering on-site and on-call server diagnostics and network consultation.

Fernando Palladua, president of Microsoft IDF Inc. in Dorval, Que. also says "less support" is required for the Mac OS compared to Windows. "That's one of Mac's major values. There are fewer nagging calls that you have to solve but can't charge for." This is also a negative, he says only half as just "if we were selling Windows, it would be far easier to sell support contracts."

However, since his staff are not busy solving OS problems they are free to focus on selling additional software and peripherals. While it's easy for Mac users to get together small networks using AppleShare, Palladua says he has to remind customers seeking client-server solutions that Mac clients — like Win95, NT and Warp clients — work just fine linked to Novell Windows NT or OS/2 Warp servers.

Now that most Macs are Internet-ready with Mac TCP/IP internet and peer Web set-up opportunities are also emerging for Mac resellers.

Open Windows on Value-Add

But it's primarily a Windows world. So it's no surprise that Lillian Lauritzen, product manager for desktop operating systems, Microsoft Canada Inc. feels "the value added opportunities are quite huge" for

Windows resellers. In addition to training and customization, one of the largest value-added opportunities is in helping 16-bit Windows users migrate to the 32-bit Windows environment.

"That's one of Mac's major values. There are fewer nagging calls that you have to solve but can't charge for."

— Fernando Palladua

The Outstar Group Inc., in Stanford, CT, estimates the cost of migrating a single PC to Windows 95 can run up to US\$717. According to market data, the estimated market for Windows 95 migration is US\$6 billion.

Migration potential is so huge that Digital Equipment of Canada Ltd. has developed Digital Technology Migration Services for Windows 95 to manage everything from Windows 95 implementation to training and support. "Organizations are being forced by end-users, many of whom are running Windows 95 at home, to migrate" to Windows 95 on desktop or Windows NT on workstations, says Roger Egan, Digital's Kamata, Ont.-based technology migration services program manager.



Help Out With Migration

For most organizations, single OS migrations may happen once every few years, so it's hard to get good at this," says Egan. However, resellers specializing in migration services can add value through their expertise — helping organizations avoid migration mistakes and even taking over Help Desk functions during and after the migration phase.

The Digital migration team recently upgraded more than 100 workstations in the Metro Toronto Transportation Department to Windows 95 — leaving the organization better able to communicate internally.

What would have taken six months of work on our part ended up taking eight days

"We have worked with Apple for a long time as a ship supplier. This is one more step in our relationship," Paul Holt, Motorola Canada's Computer Group's vice president and general manager, says. "We are allowing a wider variety of operating systems to be available under the PowerPC platform."

Both Motorola and IBM will act as arms and legs for Apple," says Paul Olson, PowerPC marketing director for IBM's microelectronics division in Austin, Tex. "I don't think they could have gone to the next level of licensing by themselves."

When the Motorola Computer Group bought the right to license the operating system late in February it stated it would look to its existing channel of corporate resellers, VARs, systems integrators, and application help sell it to business users.

With the announcement in September of the StarMax family, its first PowerPC-based, Mac-compatible systems it turned to its key distributor partnerships in Europe, Japan and China and in North America (Eaton, Access Graphics, PC Wholesale, MicroAge, Legman Micro and EDI Data Systems) as well as mail order distributors such as MacWarehouse and Direct Alliance Corp.)

The Motorola StarMax Mac OS computers, backed by a five-year warranty, are also capable of supporting both Mac and PC peripherials.

"This is not a religious conversion," says Holt. "We're not out to say if you like Microsoft to move to the Mac OS. What we are looking for from the dealers and the VARs is to get the word out that there is a new product with capabilities that weren't available prior to this."

"We have a operating system platform. They have one as well. We strongly support both platforms," says Lillian Lacroix, Microsoft Canada's desktop OS product manager. "We have a variety of applications for the Mac OS. If Apple is licensing and doing more to broaden its scope it's great for us as well."

Motorola became the first vendor with the privilege of sub-licensing the Mac OS to other manufacturers in OEM and private label agreements. IBM and Motorola are sub-licensing the Apple technology to manufacturers in Taiwan and China, not traditional markets for Macs.

Motorola has a relationship with the Taiwanese motherboard manufacturer, SOYO Computer Inc., to make clones for the consumer market, plus a joint venture with Nanjing Panda Electronics Co. to assemble and distribute Mac OS based desktop systems in China. Meanwhile, it will be the leading distributor of the Motorola StarMax systems in Japan.

with the Digital Migration Services team," says Andrew Bell, manager of the Traffic Data Center at Metro Toronto Transportation Department.

Many corporations and small businesses, requiring more robust OSs, want Windows 95 or NT on their computers. This gives resellers the opportunity to sell hardware upgrades or more powerful computer systems. And since Windows NT is hardware-ready, there are opportunities for resellers to set up and customize corporate intranets or point Web systems on smaller networks.

Warped But Working

According to Max Herson, president of The Internet Resource Centre Inc. in Richmond Hill, Ont., Windows NT comes much closer in functionality to OS/2 Warp 4 than Windows 95. However, Warp is the only true multi-tasking, multi-threading OS, the IBM RESC member says.

"Optimized for the 32-bit environment, Merlin really exploits the Pentium or Pentium Pro CPU."

Warp 4 gives resellers the opportunity to add value in the areas of voice navigation and voice decision training and customization, says Herson. Set up properly, users can even surf the Net using voice. And resellers can develop voice applications for vertical markets like the legal and medical professions. When it comes to using Warp or nei-

"Optimized for the 32-bit environment, Merlin really exploits the Pentium or Pentium Pro CPU."

— Max Herson

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"The opportunity to sell a new brand, and the peripherals and software that get bundled in with that close system, tends to create some fresh excitement around the MacOS platform that resellers should be happy about," says Lamar Pons, vice-president of OS and technology licensing for Apple Computer Inc.

In May IBM's microelectronics division Enticed its licensing agreement and immediately sub-licensed the technology to Taitan and DTK (Data Tech), two lesser-known motherboard manufacturers in Taiwan, and signed an agreement with Akas — a direct marketer in Japan.

Until now to clone a Mac, not only did you have

to buy the operating system from Apple, you had to buy the hardware from them as well, limiting the ability to differentiate either by capability or price.

The IBM PC division hasn't announced any plans for an IBM Mac brand but both Apple and IBM verify that they are working together on a notebook computer.

"The Mac business is our volume business for the PowerPC," says IBM's Olson. "By enabling the MacOS market-place we want to sell more PowerPC microprocessors."

By the first quarter of next year, Motorola expects to present its first machines built on the Common Hardware Reference Platform (CHRP) designed to run software written for both the Windows and the MacOS. Already users on the PowerPC platform can move between Windows NT, AIX, and Solaris. By adding the MacOS users will be able to use the multiple operating systems to run their preferred software. Another strategy to leverage CHRP is in the client server environment, offering Apple as the client where Microsoft NT is the server.

We believe the Common Hardware Reference Platform represents the real licensing opportunity," says Lamar Pons, Apple's vice-president. Now you don't have to come to Apple for the hardware design. You can buy off the shelf industry standard parts, put together a system and the MacOS will run on it. That is the model they are used to with Windows Intel." **□□□**

Ed Trapani is a Toronto-based journalist specializing in high technology.

"By enabling the MacOS market-place we want to sell more PowerPC microprocessors."

— OLSON

workalike workstations, running peer-to-peer LANs, connecting to the Internet or intranet. "OS/2 has all the appropriate protocols and does it well," says Blazon.

Warp 4 also has "Java under the covers," says Bill Hiedley, manager, product marketing, personal software for Mathbus, Ont.-based IBM Canada Ltd. This enables independent software vendors to develop Java applications to run on Warp and means Warp is ready to take advantage of Java applications on the Web.

According to Sun Microsystems Inc., Java will solve the four most pressing problems in enterprise IT: total cost of ownership, administration, security, and software distribution.

"Specifically, Java computing will reduce the cost per unit per year to about US\$2,500 compared to the current industry average of up to US\$35,000," says a statement from Sun.

So where does this all leave OS resellers?

Right where they are now, taking care of business by taking care of customers, adding value when and where opportunities present themselves and looking for new value-added opportunities as the computer industry continues to evolve. **□□□**

Paul Lemo (paul@direct.com) is a freelance writer specializing in high-tech and communications issues.



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Netscape sells software package for Web commerce

(NR) — Netscape Communications Corp. is selling Netscape Payment Kit, a software package for businesses to conduct Internet commerce on World Wide Web sites.

Netscape LivePayment is "open cross-platform" server software for processing payments on the Internet. It provides on-line transaction processing capabilities that companies can add to existing Web sites to quickly begin collecting credit card payments from customers for the goods and services available on-line.

But what about security? Netscape LivePayment uses encryption technology to safeguard electronic transactions. Netscape LivePayment can receive payment information from Secure Socket Layer (SSL)-enabled Internet client software such as Netscape Navigator and process the transactions over the Internet, the company claims.

The next part of the package is Netscape Payment Kit, a software system for building Internet applications and Web sites that can accept credit card payments for goods and services. Netscape Payment Kit includes the newly available Netscape LivePayment server software for online credit card processing. Netscape Enterprise Server software for building intranets and Web sites and Netscape LiveWise Pro visual development environment for creating a full on-line commerce system.

VARs for Netscape Affiliate Plus program and for Netscape Commercial Applications Partner Program, who are authorized to sell, install, and support a full range of Netscape commerce systems will work with businesses to build commerce-enabled Web sites. Netscape maintains. Netscape Payment Kit is available now and sells for US\$3,490. Netscape LivePayment is also available separately for US\$1,995. During a 90-day promotion, customers can receive a one-year Netscape LivePayment subscription that includes major and minor upgrades at no charge with the purchase of Netscape LivePayment. The Netscape LivePayment subscription normally costs an additional US\$795. An upgrade to Netscape Payment Kit is available for Netscape Enterprise Server customers for US \$2,099. Netscape LivePayment is available for immediate download and trial from Netscape's Internet site.

SGI Graphics Inc. replaces Indy line with O2 line at 10X power

(NR) — Silicon Graphics Inc. has announced a family of desktop workstations called O2, which the company claims is 10 times faster than the well-known Indy line.

Long known as the high-powered computers used for developing feature films, sophisticated animations, airplanes, automobiles, and other manufactured goods, SGI says its latest round of new products focus on 3-D digital media, the World Wide Web and enterprise computing.

Along with the new O2 family, the company announced Origin, an enterprise server line, a WebFlow server, Oryx2, a visualization supercomputer, and an enterprise supercomputing server called Cray (Augie 2000).

Addressing SGI's strategy, Gary Laser, executive vice-president of SGI, said, "We strive to put the best, most cutting-edge tools into our customers' hands, enabling them to develop powerful Web applications, process corporate data, solve complex design problems, or create the greatest special effects for the next blockbuster film — better than their competitors."

The O2 workstations are shipped with a new version of SGI's Unix-based operating system called IRIX 6.3. Users will also use a new graphical user interface, which integrates Internet and content publishing.

With nine different configurations, O2's entry system comes with 32MB of memory, a MIPS R1000 PC 180 MHz microprocessor and a 1GB hard disk. At the top, an O2 system is powered by an R10000 175 MHz microprocessor. All systems include a 17-inch monitor, CD-ROM, keyboard and mouse.

Olivetti wants to sell off PC division of business

(NR) — Olivetti is cashing its chips in on PC production and is looking to sell off the PC operations division.

Olivetti's Robert Columano made the announcement following a rough few months which have seen the company's shares bouncing up and down and the effect of the PC division's continuing poor performance on the company's overall balance sheet.

According to Columano, despite the fact that the PC division has been losing money for several years, the company enjoys healthy PC sales in the UK, France and Germany. Because of this, he said, the company expects to raise around US\$500 million when the PC operations are sold along with Teletext, the company's IT systems division and Venture Capital USA, an investment operation.

Not unexpectedly, Olivetti has not named any third-party companies as interested in buying the PC operations. Perhaps more worrying, the Italian media have announced that they view a sell-off with displeasure, since jobs can be almost certain to result. As a result of the announcement, the media broker's union, whose members work within Olivetti, is considering a strike as a protest against the sell-off.

Columano, meanwhile, has told analysts and reporters that the sale of the PC operation may only be the beginning of a number of divestitures for the company. "In 1997 we plan to divest non-commercial activities," he said, adding that the aim of divestitures is "to bring the company to a position where it is not eating up cash in 1997."

Microsoft releases Money 97, targets Quicken package

(NR) — Microsoft Corp. could not buy Intuit, so it beefed-up and released Microsoft Money 97. Lending a number of features designed to further Internet banking, commerce and home banking is Clement Wizard for Quicken.

Money 97 is the first application to use Microsoft's Open Financial Connectivity (OFC) specifications. Announced earlier, OFC allows financial institutions to connect directly with Money 97. The new application also supports Visa Internet's banking specifications, ADMS 2.0.

American Express, Charles Schwab, Fidelity Investments and Chase Manhattan Bank announced a commitment to deliver OFC and Money 97-compatible banking and brokerage products for home use. Another 37 companies, including CheckFree, CH ProServices and EDS are building OFC servers for banking and payment services.

Microsoft stated three major goals related to Internet banking: the cooperative development of a truly open specification for Internet banking, available to all financial service providers and client software developers; creating a network of premium third-party solution providers to build and implement home banking solutions, based on this specification; for financial service companies, and rapid development of client-side product support from Microsoft, including Microsoft Money, Microsoft Internet, and a set of Web-based banking controls for banks to "private label" and use on their own transactional Web sites.

Computer Associates to buy Cheyenne Software for \$1.2 billion

(NR) — Computer Associates International Inc. says it will pay about US\$1.2 billion for Cheyenne Software Inc. of Raritan Heights, N.Y., which develops security, storage management, and communications products for personal computers and Unix.

The boards of directors of both companies have approved the deal, which calls for CA to purchase all Cheyenne's outstanding shares, through a wholly owned subsidiary, for US\$50.50 per share. CA has announced a tender offer for the shares, under which it will need to acquire at least a majority of the stock. Consummation of the offer will be subject to regulatory approvals and the expiration or nonexpiration of any antitrust waiting period, company officials said.

CA chairman and chief executive Charles Wang said there are "tremendous" synergies between the two companies, both in terms of their products and in terms of their channel strategies. There are no overlaps between the product lines, he added.

Redeife Hani, chairman and chief executive of Cheyenne, said CA's infrastructure will help his firm speed up its market penetration in all three of its major markets. He also said Cheyenne will be able to take advantage of many features of CA's Uniserve/TNG systems management software with tie-ins to its own storage management products. Wang said the combination will make CA the only vendor offering "fully integrated, end-to-end, heterogeneous storage management."

In the security area, CA plans to integrate Cheyenne's anti-virus software with its own security offering, Wang said. In the communications area, he said, the company plans integrated products including voice communications, and will integrate Cheyenne's communications software with its own internet offerings.

Wang said Cheyenne's largely indirect sales strategy will complement that of CA, which relies heavily on direct sales.

Cheyenne is to operate as a division of CA, under Hani's management, and the US\$1.5 billion software firm said it intends to keep on all of Cheyenne's roughly 600 employees.

Merisel completes European sell-off to CHS Electronics

Merisel Inc. has completed the sale of its European operations, plus its Latin American and Mexican operations to CHS Electronics Inc. for about US\$154 million.

Merisel applied US\$75.2 million of the cash received to permanently reduce its debt. Merisel will make five semi-annual payments of US\$3.3 million per month from February to June 1997.

Merisel is also working on a restructuring or refinancing of its publicly traded debt, says the company.

The company's remaining operations use the distribution businesses in the U.S. and Canada, and the ComputerLand franchise and Datajet Aggregates businesses. Revenues from these divisions were US\$4.6 billion in 1995 — with US\$85 million in earnings before interest, taxes and other charges.

Apple reports quarterly profit

After some rough financial times, things are looking rosier at Apple Computer Inc., as the company has declared a US\$625 million fourth-quarter profit for the fiscal quarter ended Sept. 27.

Barber Weir Server estimates had suggested the company would lose approximately US\$37 million.

Revenues for the quarter were US\$2.321 billion, down US\$682 million from the same quarter a year ago. Unit shipments of 932,000 were 26 per cent less than the same quarter last year, but up 11 per cent from the previous quarter ending June 1996.

Apple's fourth-quarter results included an adjustment of a prior period restructuring charge which reduced pre-tax operating expenses by US\$38 million. Without the adjustment, net earnings would have been about US\$4 million.

While Apple's figures out-performed general expectations, Apple CFO Fred Anderson was firm in stating the latest figures "show progress towards a return to sustained profitability." However, that sustained growth is not expected until the end of the second quarter ending March 1997.

Apple announced a reduction in inventories by US\$400 million and a recommitment of its layoff schedule by 1,300. Total inventory reduction now totals US\$800 million. Regarding layoffs, Anderson said an earlier estimate of eliminating 2,900 positions would be reduced to 1,500 positions, and 900 of those positions have already been eliminated.

NEC targets PCs at small business market

NEC Computer Systems has announced a new family of PCs aimed at the small business market.

The Ready Office line for the retail channel and the PowerMate Office line for the reseller channel, are Pentium Pro-based. They began shipping last month, starting at \$3,166.

Through a relationship with Microsoft, NEC is offering a small business software suite that includes the Microsoft Excel, Word and Publisher 97 software applications, and a special edition of Microsoft's small business templates for the Microsoft Excel and Word programs. Other packaged programs include Publisher First Accounting, Microsoft's Schedule+, Mouse Bookshelf and Antispam Streets. **CHS**





Computers seized at New Brunswick retailer in anti-piracy raid

(NB) — A number of Canadian computer retailers wondered how TPE Industries, under the name "Just Imagine," was able to sell computer systems 15 per cent cheaper than its competitors. With a court order in hand, Microsoft Corp. and accompanying law enforcement officers seized computers, records, and software materials from Just Imagine to prove the company used illegal copies of Windows 95 as the operating system in its retail computers.

On Aug. 21, the Federal Court of Canada issued an order authorizing Microsoft to search TPE's facilities at Grandview, New Brunswick. Two days later, accompanied by Fredericton Sheriff's Office personnel, Microsoft representatives entered the order.

TPE sold computer systems locally through its retail outlet, but, according to a local source, most of the company's business was mail-order web significant sales across the provinces of Canada. Microsoft suspects TPE may also have distributed counterfeit manuals and boot disks along with pirated copies of Windows 95.

As a result of the seizure, TPE (Just Imagine) is facing a Microsoft lawsuit seeking permanent injunction, agreement further copyright infringement, compensatory damages for pirated software, punitive damages of \$100,000, attorneys' fees, and court costs.

Gail Maclell is a spokesperson for another Brunswick Microsystem in New Brunswick. She said, "We are sorry to see this happen in New Brunswick since the community of computer retailers in our province is very tight and well known. However, these kinds of practices have to be stopped and we applaud Microsoft's efforts."

Microsoft says software companies lose 50 per cent of their revenues to software piracy worldwide.

Tech Data acquires Bell & Howell

Mississauga, Ont.-based distributor Tech Data Canada Inc. has acquired the Canadian distribution operation of Bell & Howell's Imaging Peripherals Products group — a provider of document imaging technology.

In addition to copying and supporting Bell & Howell's Copscan one-sided and two-sided flatbed scanner, Tech Data's new division will offer a range of products including scanners, optical drives, jukeboxes, media, monitors, imaging processors and software tools.

According to a statement from Michael Bookbinder, president of the Canadian Information Image Management Society, the workflow, imaging and document management industry will grow to \$32 million by the end of 1997.

ServiceWorks introduces multimedia monitors

Vancouver's ServiceWorks Distribution Inc. is shipping its new DataFlow multimedia monitors — the 15-inch DC615 and DC620, which include sound reproduction.

Both monitors feature a built-in head phone jack, while the DC 620 also includes built-in external speakers.

They include intelligent digital controls and on-screen display, 1280 by 800 maximum resolution, VESA, VGA, Super VGA, and SVGA compliance; 16-million color capability; a flat, anti-glare, anti-static screen, and non-magnetic housing.

Estimated street price is \$449 for the DC620 and \$408 for the DC615.

Luckman opens Canadian sales office

Luckman International Inc., a provider of client-server software based in Los Angeles, has opened a Canadian sales office in Mississauga, Ont.

The new address is Luckman

Interactive Canada, 605 Britannia Road East, Suite 102, Mississauga, Ont. L4Z 3B6.

Five people will initially staff the office, supporting such Luckman products as Web Commander, Net Commander, Luckman's Official Interactive World Wide Web Yellow Pages, and ISP Connect.

Merisal Canada will distribute ReadySoft titles

ReadySoft Inc. had signed a distribution agreement with Merisal Canada Inc., under which Merisal will distribute its new gaming and reference titles.

The agreement covers current and upcoming gaming titles including the *Demo action adventure game*, the *RW Hockey* business reference title, and the future *Grey on CD role*.



ATI and MGI strike marketing deal

Richmond Hill, Ont.-based MGI Software Corp. and ATI Technologies of Markham, Ont.,

have announced a worldwide marketing agreement to provide a special version of MGI's PhotoSuite with ATI's line of video and graphics accelerator products.

Shipments of MGI PhotoSuite will begin immediately with ATI's 3D XpressPro PC2TV and 3D Pro Turbo PC2TV boards.

The multi-year deal also involves a non-exclusive 3-D graphics software product from MGI.

Just say Yes — says CAAST

The Canadian Alliance Against Software Theft (CAAST) has launched a major public education program through national and independent outlets to combat software piracy.

The program, called Say Yes to Legal Software, will use CAAST stickers and posters to enlighten store windows to identify retailers who have signed the alliance's code of ethics. Retailers will also display and distribute brochures on software piracy and how consumers can avoid illegal software.

In Canada, software piracy costs publishers, makers, and ultimately consumers, hundreds of millions of dollars annually.

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The Domain Name Challenge

Making it easy for your customers to find your business on the Internet can depend on picking the right domain name and registering it before anyone else does



by Sean Ehrlington

Domain name registration has become a bit of a land rush in the past few years, ever since some people noticed that large companies were sometimes lax in making sure that they had rights to use their own name in cyberspace.

In one famous case, an American writer registered mcdonalds.com after noticing that the hamburger giant had neglected to do it. McDonald's later bought the rights to use the name back after making a \$10,000 donation to the author's favorite charity.

For many of your business customers, clearly as more and more organizations get on the Net the chances of someone having "their" name increases so it makes sense to think about registering a domain now.

After all, how you would feel to find out that your closest competitor had registered your company name and was preventing you from using it?

Unlike IP addresses, which nowadays are almost always assigned by the Internet service provider, your domain name is yours and can be mapped to any set of IP addresses even if you change ISPs in the future. Domain names should be just as memorable like com.com, biz.com or [Registration for the most \(commercial\) edu \(educational\) gov \(government\) net \(ISP\) and org \(organization\) domains is handled by InterNIC. This company is a joint venture with AT&T, the National Science](http://vac.com—and they should fit the name of the company.</p>
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Foundation and Network Solutions Inc. They have a well laid-out Web site at www.internic.net which includes all the forms and a step-by-step guide to registering your name in Canada the .ca (Canada) domain is administered by CAnet at www.cnet.net.

A domain name can be up to 25 characters long and can contain letters, numbers and hyphens (but not consecutive dots), or it can not be protected.

The InterNIC will not investigate whether you have any particular rights to a name and if they do not agree with any legal problems, which may arise from copyright infringement, the InterNIC will not enforce names, which are absolutely *not* used but others may use they will approve almost any name which is available.

It cost US\$100 to get a name registered and you can pay by credit card, check or money order. The Web interface does not accept credit payments, however you can call the telephone number provided at the site and give your credit card number over the phone. There is an annual fee of US\$50 for the use of a name and your annual US\$100 payment covers the fee for two years.

For additional payments the InterNIC will notify the user 30 and 60 days before payment is due. There is no limit to the number of domains you can register.

To check to see if any given name is available simply use the Web interface provided at the InterNIC Web site. Have you ever

wondered who grabbed all the great names on the Internet?

Well, for instance, was the smart person who registered compuser.com or narcissus.com? The Web interface provides the address and contact information for all of the names which have been registered. If a desired name is already taken one will have to negotiate with the registered user to buy the name or else simply hope that they neglect to re-register it every year and it becomes available again. Or try a simple modification to the desired name to see if those are taken. If xyz.com is not available perhaps try xyz1.com or xyznada.com. And here in Canada, don't forget to see if the desired name is available at cnet.ca rather than xyz.com.

For a small fee most ISPs will usually fill out the forms and register names, as well as provide the modest amount of technical information required—for example, the IP address of the name server being used. Or, use the InterNIC site to register yourself.

Either way, don't delay—it is a first come, first-served system and having a good domain name can make all the difference when it comes to doing electronic commerce. ☐

Sean Ehrlington is senior account manager with *Monday's Comments* in Mississauga and can be reached at sean@Monday.ca



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COLOR INK-JETS

Clean, Crisp and Cheap!

(Just The Printer For Your Occasional Color Customer)

by Tim Bingham-Wallis, Chris Fisher and Steve Halinda

ink-jet technology has undergone continuous improvement since our last inspection of this genre of printers. Today's models are superior to the ones we saw 12 or even six months ago. They are faster, and the reproductions they create are crisper and truer to the original than ever before.

And competition now dictates that decent color printing is well within the realm of almost anyone. Indeed, the cost and utility of ink-jet printers makes them appealing to a wide audience. Output can enhance a child's kindergarten project, or save marketing documents for the *Fortune* 500.

The color ink-jet market is expanding and crystal ball givers tell us this market will continue to grow at least until the end of the decade. *ITS Strategic Direction* predicted 35

per cent annual growth in shipments of color printers from 1995 until 1999. Based on this estimate, we can expect to see more than one-and-a-half million color ink-jetting devices shipped to homes and businesses in 1999.

Lexmark divides the color printing market into two distinct segments: a market in

graphic design, engineering, marketing, scientific, and cartography.

The big part of the market and the one that pertains to ink-jet printers is the "occasional color" market. Here we see a more general use of color printing, and color longevity is not as important as it is with the full-time

color market — but price is a key issue. The market is price sensitive, and high volume.

The purest and most thoughtful minds are those which love color the most.

— John Ruskin, English art critic and author — *The Stones of Venice*, vol. 2, ch. 5, sect. 30 (1852).

which the occupants use color printing on a full-time basis, and a market in which the occupants demand only occasional color printing. Higher-end color printers (those that use thermal wax or laser technology) tend to be sold in the full-time color market. This market in application-specific, requires high color longevity and values color performance over price. It is exemplified by high price and low volumes, and includes such disciplines as

A Colorful Graphical World

The reason for increasing demand for color printers is easy to understand. Over the last couple of years there has been a widespread movement of the general computing world toward the graphical user interface. Yes, GUIs have been around for some time now, but the early versions were at best black and white. Let's not forget that it has only been



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a little over a year since the introduction of Wyndes 85, allowing the bulk of users to boot directly into a GUI. The same two are best said of the laserjet: over the last couple of years, it has become a rule, colored paper. Ideas about how information is processed and ideas exchanged have quietly shifted and color is playing a far greater role.

Other factors are helping to drive the ink-jet market. Barriers that traditionally held up sales of color ink-jets in the "occasional user" market have fallen, or are much smaller. Issues such as color support in popular applications, page print speed and color management standards are no longer a big issue. Still, one factor remains: text quality. For anyone whose primary requirement is mostly text-based correspondence, the issue of text quality will not go away. It's not entirely difficult to distinguish whether a text document has been printed on a laser or an ink-jet. However, with improved printing technology and new ink designs, some of today's high-end ink-jets give lasers some competition. For many customers, an ink-jet is a good match to their business or domestic situation.

As per usual, we put a lot of questions to the readers whose products we have reviewed and the editors' notes indicate any specific comments that we felt are due either respecting and testing the equipment.

Apple



CWS 2500

Reseller authorization requirements:

Apple resellers must commit to purchasing a certain amount of product each year plus certain numbers of display product per year. A new reseller must also be able to prove that they can provide incremental growth and be able to offer product introduction into a new geographical and/or vertical market.

Street price:
\$449

Marketing support:
Resellers are encouraged to take advantage of marketing incentive programs organized by Apple or distributors.

Maintenance relationship with resellers:

Resellers can be Apple-authorized resellers or Apple-authorized server providers. Apple-authorized resellers receive technical support from distributors. There is an established escalation process in place for technical issues which cannot be resolved in a timely fashion. In such cases, the distributor will receive technical support directly from Apple.

Volume discounts:
Yes.

Additional channel support:
The dealer channel is supplied with sample collateral materials on a monthly basis. Resellers are supported by local distributors and have local Apple presence at most markets. Dealers are encouraged to participate in marketing incentive programs.

What is Apple's view of the ink-jet market vs. the laser market? How does the vendor position its ink-jet printers in the market?

According to Apple, The ink-jet market is a quickly growing segment. The biggest advantage of the CWS 2500 is the consumer market, which is obviously one of the fastest growing markets for computer technology today. Ink-jet technology makes color printing affordable and accessible to the average user, and Apple is dedicated to this market for the foreseeable future.

What are Apple's ink-jet printers' strengths?

Apple says, Seamless compatibility with Macintosh compatible computers, as Apple makes both the Macintosh print drivers and the printers. The StyleWriter EtherTalk Adapter connects StyleWriter or Color StyleWriter printers directly to an EtherTalk network, eliminating the need to dedicate a Macintosh computer as a print server.

To help consumers get the most from their new color printers, Apple is including the Apple Color Printing CD with every purchase. Software applications on the CD include CardShopPlus[®], Calendar and More, and StockShopPlus[®] from Metacore Software, plus 12 extra TrueType fonts from Bitstream. Valued at more than \$100, the CD is included at no extra charge.

Product description:

The CWS 2500 offers premium true black

and vibrant color output at a resolution of 720 by 360 dpi. The printer automatically chooses the optimal ink density for the paper type selected. In addition to a color ink cartridge featuring a separate true black ink tank, users can choose an optional high-performance black-only cartridge for convenience. The CWS 2500 features water-resistant ink for reliable quality and offers five-page-per-minute speeds for high-performance black printing and 0.66 pages per minute for color. The CWS offers usability features including the ability to print two to four reduced-sized documents on a single page, 64 TrueType fonts and capability for drapping shaded or solid "watermarks" onto the background of a page.

Editors' notes:

Apple's new StyleWriter 2500 was a unique response. Its reproduction of color was excellent, and it is able to print at a sharp 720x360 dpi at a top speed of 5 ppm. A unique feature of this printer is its ability to turn itself on and off upon detecting a print job request from the computer. With a list price of \$449 and a one year warranty, this is an attractive option for all Mac users.

Canon



BJC-240



BJC-4100

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QDI

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Keywords: self-esteem; self-concept; self-identity



BJC-4550

Street price:

- BJC-240 — \$369

List price:

- BJC-240 — \$329
- BJC-4550 — \$699

Marketing support:

Canon offers various consumer promotions throughout the year to add additional value to the customer. As well, Canon provides its dealers with an assortment of POP materials including an attractive demo and display stand that lists features of that product along with Canon's 1-800 number and Instant Exchange Warranty Logo.

Maintenance relationship with reseller:

Canon offers an extensive list of authorized service dealers across Canada.

Additional channel support:

Canon has a round-the-clock customer and dealer support telephone help line, at 1-800-261-1121.

Positioning/strengths:

The Canon BJC-240 is rated as the budget-minded color unit, or as a second printer for the home. In color it provides 360 x 360 dpi using the optional BC-62 black cartridge; crop fast 720 x 360 dpi black and white output. More importantly, photo realistic output is now a reality, when printing on high resolution paper using Canon's new optional BC-06 Photo Cartridge. Also included with the BJC-240 is the Canon Creative 2.0 CD-ROM. (The applications allow the user to create everything from greeting cards, stationary and T-shirts to brochures and newsletters.)

Comments:

Canon also offers the BJC-4550 which utilizes new PhotoRealism technology. The BJC-4550 is Macintosh and Windows-compatible. Its 11-inch by 17-inch printing capability makes it the perfect for graphic artists, engineers and the traditional small office customer. Users can create everything from posters to signs to blueprints to spreadsheets. Best of all, the BJC-4550's print quality is

unbeatable with its 720 x 768 dpi in color resolution and print speed up to 5 ppm in black-and-white with the BC-30 cartridge.

Editors' notes:

Canon BJC-240 — One of Canon's new models, the BJC-240 is small but surely it will allow the user to print on a wide range of media: everything from normal paper to T-shirt transfers to brochures. Quality of graphics and text were adequate, with colors being bright and attractive. On the down side, the printer leaves a lot to be desired in terms of speed: with a maximum print speed of 0.25 pages per minute in color. Priced at \$329 with a two-year warranty, this printer is well-suited for home use.

Canon BJC-4100 — It offers print speeds of up to five-pages-per minute in black, and 0.8 ppm in color. As with the previous model, this printer can also make use of a wide assortment of print media. With support for dual cartridges, you won't need to swap between black and color ribs. The printer is listed at \$399, and has a two-year "in your door" exchange warranty.

Canon BJC-4550 — By using Canon's BC-22 Photo cartridge in conjunction with high resolution paper, the ink produces images which are vibrant and sharp. Another new type of ink from Canon is the BC-240 which allows you to add fluorescent neon colors to your documents. This concept is handy if you want to make something stand out, or to impress someone. As with the 4100, the printer has support for both black and color cartridges simultaneously, as well as support for Mac interface. Priced a little on the high end, Canon lists this printer for \$699.

Street price:

\$399

Marketing support:

- MDF on case-by-case basis
- National advertising (tagging reseller)
- Joint trade show support
- MD programs available
- 1-800 service refers customers to resellers via postal code

Maintenance relationship:

Training is required for authorization.

Volume discounts:

No.

Demo units:

None at present for the Epson Stylus, but this may change in the next product rotation.

Additional channel support:

- Training programs
 - Epson Know-It — sales support includes spec/print sample/demos
 - Epson Technician — technical support reseller program
 - Epson Technician University — for ongoing on-line training
- BBS for standard downloading
- Sponsored 1-800 number for reseller tech support

What is Epson's view of the ink-jet market vs. the laser market, and what is Epson's positioning for its products?

Epson says, "The ink-jet market is vibrant with a 40 per cent and up growth rate: it is the fastest growing printer market. The ink-jet desktop color printer has displaced the personal color printer because of its superior performance-to-price ratio. There is little overlap between the color ink-jet and the networked color laser printer."

What are Epson's ink-jet printers' strengths?

The Stylus 500 is aimed at the desktop. It is Epson's workhorse and is expected to be its leading seller. Its strengths are its ability to print on plain paper at 720 dpi, giving printouts picture quality.

Editors' notes:

Epson Stylus Color 500 — Epson has once again introduced a first in printer technology, by giving the option of printing on all media at resolutions of 720-dpi. This printer features print speeds of up to 1 ppm color and 4 ppm black. As with several new models in this series, the Stylus 500 has support for dual cartridges, and a Mac interface. As one would expect, print quality is exceptional at 720 by 720 dpi, especially on coated and glossy paper. Listed at \$399, this printer is definitely worth considering.



Stylus 500

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Reseller Authorization:

None

Suggested retail price:

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QDI

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Hewlett-Packard



DeskJet 400



DeskJet 680C



DeskJet 870Cxi

Nov 95

Suggested retail price:

- DeskJet 400 — \$347
- DeskJet 680C — \$543
- DeskJet 870Cxi — \$799

Authorization:

All VAR authorization is done through distributors (login Micro authorized).

Marketing support:

Various, including advertising, public relations and seminars, and collateral materials.

Maintenance relationships:

Maintenance is done through HP directly or through resellers.

Volume discounts:

Various.

Demo availability:

None available for DeskJet 400 or DeskJet 680C; demo units are available for DeskJet 870Cxi.

Product strengths:

According to HP, DeskJet 400 is designed for price-sensitive customers, including first-time printer buyers and students who want a printer primarily for their own personal use. The printer is ideal for families who own document printers or other older technology and are considering upgrading to ink-jet printers. It is a single-pen device, so if users want to print in color, they have to swap the black cartridge for an optional color cartridge.

HP says DeskJet 680C is a two-pen black and color ink-jet printer that meets the demanding and varied needs of home PC users. The HP DeskJet 680C printer for DOS and Windows PCs and the HP DeskWriter 680C printer for Macintosh PCs are designed for the family and allow parents and children to print virtually any creation on a variety of media types and sizes. It is ideal for making banners, greeting cards and home crafts as well as for everyday family printing and take-home work.

HP says The HP DeskJet 870Cxi Professional Series printer is a color ink-jet printer that combines premium performance, professional-quality printing and options that offer individuals and small workgroups the flexibility of printer sharing. It is available for the PC and Macintosh platforms.

Editors' award:

HP DeskJet 400 — This printer is new to HP's DeskJet line. Small and affordable, the printer is capable of printing up to 3 ppm in black. With HP's Resolution Enhancement technology (RET), the output quality is acceptable at resolutions of both 600x300 dpi black and 300x300 dpi in color.

HP DeskJet 680C — The 680C can zip along at speeds of 5 ppm in its Econo mode at a resolution of 300x300 dpi black. Using 600x600 dpi, this printer's highest resolution, it produces sharp-looking text and graphics. Listed at \$543 with a one-year warranty, this printer is ideal for both home and small office printing.

HP DeskJet 870Cxi — HP combines both speed and high resolution printing with the DeskJet 870Cxi. Features include printing up to 8 ppm black or 4 ppm color, a Mac interface, and HP's "Ready Set Print" print job, featuring a CD-ROM containing professionally-designed templates to help create business documents easily. Our tests show that printing at 600x600 dpi black text on coated paper made it difficult to distinguish the out-

put from a laser printer. It's a very impressive package, with a lot of belly price tag. The printer lists for \$809 with a one-year warranty, but for business environments looking to add color to the office, this printer is an ideal candidate.

Lexmark



Color Jetprinter 1020



Color Jetprinter 2050

Nov 95



Color Jetprinter 2070

Suggested retail price:

- 1020 — \$279
- 2050 — \$369
- 2070 — \$399

Street price:

- 1020 — \$199
- 2050 — \$349
- 2070 — \$499

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◆ PATENT PENDING



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MOTHER BOARD



ASUS DIGIBYTE J300

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Ink-jet Printers Test Results



	Apple Color StyleWriter 2300	Canon BJC-240	Canon BJC-4100	Canon BJC-4200	Epson Stylus Color 920
Print Method	Thermal Ink-jet	Bubble Jet	Bubble Jet	Bubble Jet	Piezo Electric
Max resolution (color) (dpi)	720x360	300x300	720x360	720x360	720x720
Max resolution (black) (dpi)	720x360	720x360	720x360	720x360	720x720
Max print speed (color) (ppm)	0.66	0.25	0.8	0.8	1
Max print speed (black) (ppm)	5	3.4	5	5	4
No. of jets (color/black)	72/64	48/64	136/128	136/128	60/64
Number of cartridges	1	1	2	2	2
Standard interfaces	Mac	Parallel	Parallel	Parallel, Mac	Parallel, Mac
Drivers included	Mac	Win 3.1, Win95	Win 3.1, Win95, Mac	Win 3.1, Win95, Mac	Win 3.1, Win95
Weight (lbs)	6.9	5.5	7.1	9.3	11
Dimensions (WxDxH)	14.2x9.2x8.3	14.2x8.5x8.8	14.4x7.8x8.8	17.8x10.2x8.5	17x9.8x7.8
Noise level (max)	45 dBA	47 dBA	45 dBA	46 dBA	49 dBA
Input/output tray	100/100	100/100	100/100	100/100	100/30
Letter (8.5x11)	Yes	Yes	Yes	Yes	Yes
Legal (8.5x14)	Yes	Yes	Yes	Yes	Yes
A4 (8.27x11.69)	Yes	Yes	Yes	Yes	Yes
B5 (7.17x10.52)	No	Yes	No	Yes	Yes
Envelope	Yes	Yes	Yes	Yes	Yes
Transparencies	Yes	Yes	Yes	Yes	Yes
Suggested retail price	\$449	\$329	\$399	\$699	\$559
Street price	\$269	\$269	\$299	\$529	\$399
Warranty	1 year	2 years	2 years	2 years	2 years
Contact	(800) 565-5829	(800) 848-4123	(800) 848-4123	(800) 848-4123	(800) 269-7700
Internet contact	www.apple.co	www.canon.com	www.canon.com	www.canon.com	www.epson.com



Nov. 95



Nov. 95

**Hewlett-Packard
DeskJet
400**
**Hewlett-Packard
DeskJet
580C**
**Hewlett-Packard
DeskJet
570Cxi**
**Lexmark
JetPrinter
1050**
**Lexmark
JetPrinter
2060**
**Lexmark
JetPrinter
2070**
**Dekdata
OKJet
2010**

Thermal Ink-jet

Thermal Ink-jet

Thermal Ink-jet

Thermal Ink-jet

Thermal Ink-jet

Thermal Ink-jet

Thermal Ink-jet

300x300

600x600

600x600

600x600

600x600

600x600

600x300

600x300

600x600

600x600

600x300

600x600

600x600

600x300

0.3

0.7

4

0.5

2

4

0.5

3

3

8

3.6

5

7

3

N/A

N/A

N/A

48/52

N/A

96/104

48/56

1

2

2

1

2

2

2

Parallel

Parallel

Parallel Mac

Parallel

Parallel

Parallel

Parallel

Win3.1, Win95 Mac

Win 3.1, Win95

Win 3.1, Win95

Win 3.1, Win95

Win 3.1, Win95

Win 3.1, Win95

Win 3.1, Win95

6.6

11.6

14.3

9

9.75

11

9.4

13.7x11.1x0.96

17.2x18x7.9

17.5x15.6x8.9

14.2x8.2x7.8

7.2x10.6x11.71

7.2x11x11.7

17.2x10.6x11.3

52 dB(A)

53 dB(A)

48 dB(A)

N/A

N/A

N/A

N/A

50/50

100/50

100/50

100/55

150/75

150/75

150/150

Yes

Yes

Yes

Yes

Yes

Yes

Yes

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Yes

Yes

Yes

Yes

\$247

\$511

\$539

\$299

\$399

\$599

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Marketing support:

Available from Lexmark directly and through our distributors.

Maintenance relationship with resellers:

Resellers can apply to become warranty service authorized.

Demo unit availability/restrictions:

A demo program is available to all resellers. Demo product is purchased directly from Lexmark.

Additional channel support:

- Product literature
- A tech support line
- Reseller sign-in kit

What is Lexmark's view of the ink-jet market vs. the laser market?

Lexmark says the company sees more growth in this market versus the low-end laser market.

Editors' notes:

Lexmark Color Jetprinter 2020 — As with any printer from Lexmark's line, one of the first things that come to mind is the sleek appearance. This printer is compact, lightweight and very well priced. The 9120 delivers both text and graphics at 600x300 dpi, up to 3.5 ppm in draft mode. Lexmark will throw in CoreDraw 3.0 on CD-ROM as a bonus, and all for just \$299. The printer comes with a one-year express/next-business-day warranty, meaning that should the printer fail, Lexmark will ship an exchange printer the next business day and the customer's printer is repaired.

Lexmark Color Jetprinter 2050 — Lexmark's newest addition to its ink-jet lineup is the 2050. Once again, very unobtrusively pleasing. Resolutions of 600x600 dpi produce excellent text and graphics at speeds up to 3 ppm black or 2 ppm color as was evident in our testing process. The printer is capable of housing both color and black ink cartridges at the same time. Included is Lexmark Workshop CD software which allows for printing of proofing cards, T-shirts, certificates and labels. The CD also contains photo manipulation software and a comic book creator. The warranty is identical to the previous model 1030, being a one-year express/exchange warranty. Listed at \$399 it's hard to pass up.

Lexmark Color Jetprinter 2070 — With the 2070's dual cartridge system, the user will get sharp looking text and graphics at resolutions of 600x600 dpi, and speeds up to 7 ppm black. Our tests showed that print quality was superb in both color and black, thanks in part to Lexmark's half-toning technology, which provides smoother and brighter colors. The 2070 lists for \$399, and has a two-year express/exchange warranty.

Okidata**OkJet 2010****Reseller authorization:**

It is not required to purchase printers, but is available for participation in promotions and programs.

Suggested retail price:

\$399

Street price:

\$399

Marketing support:

For authorized resellers, free literature on-product advertising and toll-free access to dealer support. Other incentive programs and promotions include government/education program rebates.

Maintenance relationship:

Resellers must be authorized to perform warranty service for Okidata products. Resellers are free to offer extended service agreements or purchase them from the dealer.

Demo unit availability:

For authorized dealers, there is a new product demo pricing. Short-term loans on other products are available.

Additional channel support:

- Web site
- 800
- Toll-free support line
- Fax-back field sales support as available

What are Okidata's printer's strengths?

Okidata says. The printer uses a dual cartridge design and offers a larger than average 150 sheet Paper tray. The printer uses a stronger paper path which minimizes paper curl.

Editors' notes:

Okidata OkJet 2010 — Currently, this is Okidata's only ink-jet printer. It's capable of speeds up to 3 ppm in black, and 0.5 ppm color at up to 600x300 dpi. Our tests revealed that colors came out looking not only sharp — but also very accurate. The 2010 lists for \$499 with a two-year overnight exchange plan. We're told that Okidata is currently working on a new model, which to be released. On their first attempt, Okidata has done very well and we eagerly await their new creation.

Editors' Choices

Nov. 96

Epson Stylus 500

HP DeskJet 870Cxi

Lexmark Jetprinter 2050

For the sharpest possible text and graphics, the Epson Stylus 500 with its 720 dpi resolution, combined with its low price, is unmatched.

For superb quality printouts, fast print speeds and overall value package, the Lexmark Jetprinter 2050 is an excellent choice.

For unparalleled combinations of the fastest print speeds and print quality, HP's DeskJet 870Cxi gets our vote. **5555**



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The Drive Of The Month Club

Mass storage is changing by leaps and bounds — a cause for celebration, and caution

by Jeff Evans

The continuing drop in the cost of major computer components—RAM, CD-ROM drives and graphics cards—is further sharpening the ever-tight pace that retailers have to run—between overstocking with soon-to-be passé PC models, and missing out on those opportunities that come from being able to offer the market sufficient quantities of the hottest price/performance systems. In particular, the whole product segment of mass storage devices is undergoing far-reaching change, presenting both opportunities and dangers.

omega has scored one of the splashiest hits in the PC mass storage market in 1996 with its slickly marketed, popular, cheap Zip drive.

Its, SyQuest, CD-Recordable—all either appeared on the market or dropped radically in price while increasing in performance, further complicating the mass storage product offerings to the mass market.

The Main Event: EIDE versus SCSI

For several years, hard drives in the PC market were strictly

divided into two very different categories: IDE (Integrated Drive Electronics) or SCSI (Small Computer System Interface) drives.

IDE models were cheap, but slow and limited in terms of how many drives could easily be added to a PC. SCSI models were markedly more expensive, but also significantly faster, and the SCSI technology lent itself to adding several additional drives to a PC. In practice, IDE drives were the choice for most home and low-level business PC users, while SCSI was the choice for the demanding business user, or the better "Power User." This simple distinction changed rapidly over the last couple of years, as the new, improved EIDE (Enhanced Integrated Drive Electronics) standard appeared and spread rapidly through the industry.

Today, EIDE drives deliver read/write performance only slightly below SCSI drives of comparable capacity, but the EIDE drives are still significantly cheaper than the SCSI models. SCSI has

Gigs For Cheap

The entire hard drive industry is making the transition just the gigabyte mark. Around the same time hard drives passed the gigabyte barrier with scarcely a look backward, a number of other mass storage technologies Zip,



come down in price somewhat, and its history of crankiness in terms of ease of installation has been largely overcome, but on balance, EIDE seems to have won the battle for the lion's share of the desktop PC hard drive market. However, resellers who specialize in high-end SCSI mass storage solutions may find that they are working a smaller, but higher margin professional computing customer base.

According to benchmarks, equivalent EIDE and SCSI drives from the same manufacturers (such as IBM Ultrastar ES SCSI drives vs. IBM Deskstar 3 EIDE drives, or similar comparisons of Quantum or Seagate products) reveal only a few per cent speed advantage to SCSI. This means that for the average PC user, there is no real advantage to going to SCSI. For the serious business user, though, especially where there is a good likelihood of needing to control multiple devices on a server or a high end desktop, the extra cost of SCSI is still often compelling.

The Leaders In Hard Drives

With new models appearing almost monthly, the leader in price/performance changes regularly. Also different benchmark software often yields conflicting results. Nevertheless, in recent tests, a few vendors show up as the leaders time after time. In the EIDE category, Quantum's Fireball series has often been the winner, along with Western Digital's Contour and IBM Deskstar models. In the SCSI drive category, Quantum and IBM models are also highly rated.

Even after a particular model of hard drive has been declared obsolete, it may have some appeal both to resellers and end-users — if the price is right. There will probably always be a market for extremely budget-priced PCs for beginners without much money, or who have modest computing needs. Last series's, or last year's, hard drive models, suitably marked down, may attract ready buyers. However, the low prices shouldn't come out of a reseller's already slim margins. Manufacturers should be prepared to sell out-of-date drives at extremely attractive prices.

What Makes A Good Drive?

The criteria for a good hard drive center around a few factors: cost per megabyte of storage capacity; read/write speed (seek time), ease of installation; quality of documentation; and physical size. Most drives currently provide a street cost of around 20 to 25 cents per megabyte for EIDE drives, and 25 to 35 cents per megabyte for SCSI drives.

Removable Media

The typical hard drive is typically mounted solidly within the chassis of a PC (though there are external hard drives available; they have limited markets). Yet, most PCs also come with a floppy disk drive, to make it simple for the user to read and write fairly small amounts of information to and from a portable device. Many users, however, would like to make cheap backups of the information on a hard drive, either for archival and security purposes, or to easily move that information to another computer. Much of the most interesting innovations in mass storage have come from attempts to meet the PC users' need for making large amounts of data easily portable. Various kinds of cartridge, tape, CD and diskette devices have been developed to allow data to be physically copied and moved off of a hard drive.

Imaging Corp. has scored one of the splashiest hits in the PC mass storage market in 1996 with its sleekly designed, popular, cheap Zip drive. This is a peripheral with a removable floppy-disk style diskette. Resellers should be a little wary of the lousy appeal of the current models of Zip drive, however. The 100MB removable diskettes are looking a little shabby in terms of capacity at a time when cheap hard drive capacities are quickly moving past 1GB.

Imaging's competing Jaz drive, with a 1GB removable cartridge, is much more

impressive, from both speed and capacity point of view — it is as fast as many EIDE drives. However, it is more expensive than most consumer EIDE hard drives, making it a less attractive purchase for the mainstream PC user.

The venerable SyQuest drive, which has been the removable mass storage medium of choice for the graphic arts industry for many years, is still a contender. The latest model has a capacity of 130MB per cartridge and is very inexpensive.

Other new, more exotic mass storage technologies are also competing for the consumer's attention.

SCSI has come down in price somewhat, and its history of crankiness in terms of ease of installation has been largely overcome, but on balance, EIDE seems to have won the battle for the lion's share of the desktop PC hard drive market.

Fujitsu introduced a very capable magneto-optical disk system which had a hard time catching on despite impressive ease of maintenance and good price/performance. Various kinds of CD-ROM recorders have come on stage in the last couple of years, with prices falling below the \$1,000 mark. Many analysts claim, however, that before the CD-Recordable (CD-R) market can take off, recordable CD systems will have to get close to regular CD-ROM readers in price.

The "Optical" drive, which seemed promising a few years ago, seems to have largely flopped. Some of the early models had serious reliability problems.

Buyer (and Seller) Beware

There is no guaranteed winner to the mass storage sweepstakes. It seems certain that there will be a plethora of credible mass storage offerings on the market in the next decade. Most of those which reach the market will probably be pretty good, in their day. But, if the recent situation is any guide, even the successful products, after their day on the sun, will be superseded by demonstrably better and cheaper technology within, at most, a couple of years. **END**

Jeff Evans is a Toronto-based journalist specializing in high technology.



Resellers may find new the new version an attractive package for small LAN customers, as the networking software supports DOS, Windows, and Win95 PCs, and adds modem sharing and Internet features.



by Alan Zisman

It's finally "The Year of the Network." It starts like computer magazines started doling it: National Network Year sometime way back in the late 1980s, with the hype continuing non-stop ever since.

It's been more despite the hype than because of it: that more and more networks have sprouted up ever since — now growing beyond local area networks to connections

to the Internet — the biggest wide area network of them all. And like other software, networking software has gained in features. Once, networks provided shared services like printers, and room to store files on a central hard drive.

- Add E-mail
- Add security
- Add workgroup scheduling
- Run applications on the server
- Collaborate on projects
- Finally, try videoconferencing across the network

Of course, as our demands on the network increase, we want increasingly sophisticated software. But that means more complexity — systems that are increasingly difficult to set up, administer, and keep up and running.

Artisoft's line is an Arizona company whose core product, Lantastic, has been providing simple networking since even before the first "Year of the Network." As Microsoft has added basic networking features into its operating systems, starting with Windows for Workgroups and continuing with Windows 95, Lantastic has been forced to scramble to survive — on the one hand, adding features that added value beyond

what Microsoft was throwing in for free while on the other hand, remaining relatively simple to set up and configure.

With the newest version, Lantastic 7.0, they've pretty much succeeded.

A single package includes versions for Windows 95, Windows 3.1 users, and even DOS-only machines, and users of these various versions can all connect onto a single network. (DOS2 users have their own version of Lantastic, which can connect along with the other versions, but is not yet updated to version 7.0.) As well, users of the new version can work on the same network with users of earlier versions 5.0 and 6.0.

Installation of any version is simple — but know what sort of networking adapter is installed, and its IRQ and I/O settings. Artisoft includes drivers for a wide variety of common adapters. As well, choose a name for each machine, and need to make a hardware-related decision: will a machine be installed as a workstation or a server?

Like Windows 95 or Windows for Workgroups, Lantastic can be set up as a peer-to-peer network — machines can all function as servers, sharing printers and hard drives with the rest of the network. Performance will improve, however,



if a single machine is used as a dedicated server — allowing other machines to share its resources such as hard drives, printers and CD-ROMs. When run that way, the server doesn't need to be a real powerhouse — even an old, around \$86 as a print server can adequately serve a small to mid-sized network.

LanTastic can also be used to connect onto bigger networks, as hooks to Novell systems are included.

As in previous versions, after installation, network administrators working within Windows or from DOS-based utilities, can set a variety of levels of access, ranging from open access without login or passwords, to any desired combination of user and workgroup access levels. For many users, these security features alone make the product a worthwhile improvement over the anemic protection provided by the built-in Microsoft networking.

The big addition, however, is the result of ActivSoft's purchase of InSync ModemShare. This technology now allows LanTastic servers to share modems across the network. Suddenly, a single 28.8 modem and phone line can be made accessible to all the workstations in an office. With the addition of included TCP/IP stacks, each machine could then connect to the Internet. (And with the possibility of multiple servers, multiple modems can be made available for sharing).

Even more impressive, multiple machines can share a single Internet address, making it possible for several workstations to use the Internet at the same time with a single modem connection on the designated server and a single Internet account. (Note: this feature is only available on Windows 95 installations.)

But what about bandwidth, you ask? Can you really have several users sharing a single, modem-based Internet connection without slowing to a crawl?

Well, it's not as bad as you'd imagine. Most often, when users are accessing the Internet, they are only actually connecting to another machine in short bursts — the rest of the time, users are reading the downloaded pages, without actually being connected. As a result, two or three users can share a single modem line without noticing it too much. (Of course, as the number of users increases, the possibility of conflict also increases. Let's not imagine 36 workstations on one LanTastic network all trying to use a single 28.8 modem at once.) ActivSoft recommends getting an ISDN or faster line if you want five or more simultaneous Web surfers.

ActivSoft sells LanTastic in new user and upgrade versions, and in single licenses, 10-licenses, and unlimited installation versions. Costs range from \$99 for a single upgrade (\$189 for a new user), through

\$699 for the 10-pack, to \$1,399 for the unlimited user version.

With increasing interest from small businesses and even home users in setting up small networks, and especially with increased interest in connecting multiple machines to the Internet, LanTastic 7.0 should find a ready market — especially with its easy support for a mix of DOS, Windows, Win 95, and even OS/2 machines.

Resellers hoping to provide ready-to-go systems for these clients should consider becoming familiar with LanTastic, and perhaps offering it as an option on their systems. It fills a vital niche for users for whom Microsoft's built-in networking is too basic, but Novell Netware is too intimidating, expensive, or complex. ActivSoft Canada is an Electronics, Ont. and can be reached at 1-800-726-2763. **XXX**

Alan Zisman is a computer journalist and teacher living in Vancouver.

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The Training Quandary

by Paul Weinberg

Are the knowledge and certification always worth the time and expense of training?

Vancouver-based PC reseller Frankie Leung has been studying to become a certified NetWare engineer (CNE) since 1992.

With the exception of some free product seminars offered by vendors, he also does not have his employers' trained status, because he says he cannot afford the thousands of dollars required to subsidize the effort. Now the owner of ComPa 2000 Technology is coming to the realization that the long hours on the job may preclude him from ever getting certified personally. "Maybe, I should have hired a CNE after all," he said.

To become a CNE, one must take several courses and an exam from a training and testing facility authorized by Novell Corp. — with the total cost being about \$9,000.

On the other hand, for a person willing to be a certified Microsoft systems engineer, the combined cost of an examination at a facility approved by this vendor ranges from \$5,000 to \$10,000.

The money and the time involved in certifying employees is prohibitively expensive for many small outfits, says Bob Pritchard, president of the Markham Ont.-based R.J. Pritchard & Associates

Ltd., an expert on computer industry sales channels. The relevance of certification depends upon the reseller's focus and clientele, according to Pritchard. "Some corporate clients are likely to demand certification, others are more interested in service."

Vendor education programs for resellers are technically oriented, adds Pritchard. "Very few vendors offer sales and marketing training. Resellers need more of that."

Resellers providing solutions are generally the targets of vendors' sales app pushing their education programs. From all accounts, the most popular courses involve the three major operating systems: NT, Novell NetWare and Unix from their respective vendors, Microsoft, Novell and SCO.

"As the software industry matures, the vendors need a more experienced channel," says Stuart Bentley, president of the Mississauga, Ont.-based Trinc Training Centre, an authorized dealer for Microsoft and SCO software products.

Currently, training activity has become more intense as vendors find they cannot accomplish everything and rely upon resellers for the development of ven-

ue applications, says John Smith, IBM Canada's manager of software channels. IBM is rolling out more educational programs with the onset of complex networks and the Internet. "The challenge is to link certification with the practical real world experience," he says.

Resellers with certified, highly trained staff and up becoming competitive and more likely to bid on lockers at higher rates for solutions, according to Smith. But not all resellers are completely happy with the programs being offered by vendors.

"The resellers are acting as they want shorter classes, direct to the point," says Cam Stone, education and certification program manager for Microsoft Canada. He attributes much of the training activity to the boom in sales for Microsoft NT.

Lately, the major vendors and their authorized third-party training providers, have sought to reduce reseller resistance to lengthy classroom instruction in their courses with such alternatives as short compressed courses, self-study and computer/Internet based training or a combination of approaches. A warning though from Bentley at Trinc — he says the classroom still offers the best form of vendor education, with its stimulation of students and instructor.

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Up against the superstore vendors selling PCs direct, the small resellers gain considerable competitive advantage with certification training, says a spokesperson for the Toronto-based PC Canada Networks Inc., a reseller focused on networks. "The vendors have associated certification programs to provide end-users with a degree of confidence and guarantee the reseller's commitment to the product line," he says.

But at Ace Computers, a long-time fixture in downtown Toronto, owner Darby Yung cautions that the designation of certification has lost its consumer drawing power, now "that everybody and their mother is levying a certification."

Currently, Ace employs certified Microsoft and Novell product specialists. But Yung, who calls himself a systems integrator, is wary of spending more on certifying staff, when the prospects will view it as simply "a passport" into higher-paying jobs elsewhere in the industry. "I'm not going to spend money [on training] unless it is a revenue generator," he says.

Resellers end up working harder to push the vendors' products in order to earn back their initial investment in staff training, adds Yung. "Otherwise, you don't get your money back."

Pritchard cautions that certification, while a positive thing, is also "an effective way to raise money out of resellers."

But employees who are trained also tend to be better motivated and happier in their jobs, says Brian Olson, a vice president of the Bragan Group Inc., a Toronto-based, Unix-oriented consulting systems integrator, with a focus on LANs. His suggestion is that resellers who treat their employees well and compensate them appropriately for their improved skills face less internal turnover. Certification, he

adds, is a form of career advancement, as well as "a status symbol."

Yet, turnover can be "a fact of life" in the computer industry, says the owner of the Calgary-based Amega Micro Systems, where the technical specialists tend to stay three or four years before departing. (Pritchard, however, said he thought this tenure was remarkably long.) The Calgary reseller, who asked not to be named, recently lost her certified Microsoft engineer. "I can't keep them. They go to Anderson Consulting, SGI, IBM."

The young people she hires right out of a community college might have a good

emphasis on the IBM RS/6000. Lotus Notes and Sun Microsystems, the Bragan Group is involved in a high-end market which demands quality service. As a result, says Olson, "Our staff goes as much as possible [to training courses]. We bite the bullet and spend the money."

Olson estimates that the Bragan Group spends about one per cent of its revenues on staff training — or \$5,000 per employee. The average specialist at the Bragan Group is in-class about 25 days per year. A Unix systems administration training course, for instance, is a five-day affair, costing about \$2,200 for a single individual.

Also, the process of vendor education does not end with certification, explains Olson. The technical specialist has to keep up on top new products and changes in the technology.

But what mitigates the costs somewhat are the 15 to 20 per cent discounts the Bragan Group receives from vendors. Also, having support staff for a few days is somewhat solved by only sending one person out at a time to vendor courses, many of which are frequently repeated, adds Olson.

But whatever the vendors might say about the importance of reseller education, a appears that end-user training is still where the most of their money is still being made. Macrevels Canada, for instance has 150 sales representatives across the country devoted to selling its training, but only eight are focused on resellers.

Part of the reason is that corporate end-users are a bigger training market than resellers. Also, says Pritchard, vendors "have more impact on the corporate end-users, while the more individualistic resellers are harder to influence." **END**

Paul Weinberg is a journalist specializing in high-technology reporting and business, based in Toronto.

"As the software industry matures, the vendors need a more experienced channel."

— Stuart Bentley

"I'm not going to spend money [on training] unless it is a revenue generator."

— Darby Yung

"Our staff goes as much as possible [to training courses]. We bite the bullet and spend the money."

— Brian Olson

aptitude for technology, but are generally unemployable. Their pond of work with a small operation is essentially "an apprenticeship" where they develop their knowledge of software in support staff, which can make them valuable later, the Calgary reseller says. She never hires an individual carrying a CNE certification, without hands-on knowledge.

While the Amega owner appears wedged to the "train them and lose them" syndrome, Brian Olson at Bragan Group says the investment in vendor education has led to increased business. Olson says he expects to be hiring more technical specialists soon. New areas of expertise are being explored, particularly in Internet/intranet consulting. With an



from Newsbytes

Korea development yields 16x CD-ROM drive

LG Electronics Inc. has developed the nation's first 16x speed CD-ROM drive after six months of research and development by 14 researchers.

LG's 16x speed CD-ROM drive, which strips the state-of-the-art CAV (constant angular velocity) and CLV (constant linear velocity) technologies, has a data transfer rate of 2,400 Kbps. Mass-production of the new drive will start late next year, the company said.

The latest CD-ROM drive currently in

production are 12x drives, though Victor Company of Japan Ltd. will begin sales in December of a new 14x speed CD-ROM drive mechanism which will be made available as CD-ROM drive mechanisms for inclusion in their own products.

Matsushita Electric's ruggedized notebooks can bounce!

Drop 'em or bounce 'em, anything's OK if you own one of four new notebook computers announced by Matsushita Electric Industrial Co.

The Osaka-based electronics giant has built its new "Proline PG" to match any thing a "road-warrior" may put them through.

The "ruggedized" notebooks have been built to withstand vibration, dust, and moisture. They will cope with a spilled cup of coffee or a drop from 76 centimeters, claims the company. In company tests, Matsushita found the new computers three times more vibration-resistant than the company's conventional notebooks.

To guard against hard drive failure when the machines are knocked about, the drives are

mounted with a shock-absorbing gel. LCD screen protection is offered by internal dampers, and the entire machine is built inside a frame of magnesium alloy.

Flagships of the range are two models that include a 33MHz Pentium processor at their heart. In addition, the machines have a 1.5GB hard disk drive, 10.4-inch color TFT display, 16MB of RAM, floppy drive, 16-speed CD-ROM drive, Sound Blaster-compatible sound card, IRDA infrared port, and three types of PC-Card slots. The difference between each comes down to the software supplied, either Windows 91 or Windows 3.1.

The lower two models sport similar features except for 100MHz Pentium processors, 3MB of RAM and an 84MB hard disk drive.

The price of the top models is about US\$4,415 and the two lower models are about US\$3,516.



Korea's LGE, IBM activate joint venture company for PCs

LG Electronics Inc. and IBM Corp. have joined hands in making joint ventures into the booming Korean PC market. The new strategic alliance between the two companies goes back to LG-IBM PC Co. which will combine IBM's technolog-

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competence with LGI's manufacturing capabilities.

Signing a joint venture agreement at the Seoul Law in Seoul yesterday, LGI president John Kim emphasized that LGI's alliance with IBM, one of the world's leading computer firms, represents a turning point in Korea's PC industry. R.M. Stephenson, general manager of IBM Personal Systems, said the joint venture will benefit not only LGI and IBM, but also their suppliers and, most of all, Korean customers.

LGI and IBM Korea, IBM's Korean subsidiary, announced a total of US\$10 million to set up the new firm, with LGI holding a 49 per cent share. The two partners will jointly develop products and sell a wide array of computer products ranging from notebook PCs, desktop PCs, and PC servers to peripheral devices, all designed to meet the needs of Korean customers.

LGI is strong in manufacturing and has an extensive distribution network, while IBM is one of the world's top technological leaders and can manufacture parts at competitive prices.

The joint venture firm will initially produce 400,000 to 500,000 PCs a year, about 20 per cent of the demand for PCs in Korea. The partnership agreement between LGI to export PCs to the U.S. under its own brand but when it supplies PCs to IBM for sale in the United States, the products will carry the IBM brand.

According to Stephenson, the new firm will introduce its first jointly developed PC servers and multimedia PCs this month.

Packard Bell NEC started up PC operations in Japan

Packard Bell NEC Japan K.K., a new company formed to head the personal computer sales of Packard Bell and NEC Corp. in Japan, has started operations. The new company is a result of the first merger of the PC businesses of Packard Bell and NEC.

Packard Bell NEC Japan is headed by Eiji Alogos, chairman, chief executive officer and president of Packard Bell NEC, who takes the position of chairman. President of the new company will be Makoto Tsunoda, former general manager of NEC's extensive personal computer division. The new company is owned jointly by NEC and Packard Bell NEC.



In a telephone statement, NEC said sales for the last half of the fiscal year ending March, 1997, are expected to reach six billion yen, and 50 billion yen in two years from now. It said it plans to continue selling Packard Bell computers through large retail stores and PC dealers. At the same time new business will

be developed by selling desktop and notebook computers via NEC's system integration business channels.

PB-NEC Japan will draw on NEC's strong logistics and maintenance operation through collaboration with NEC Logistics and NEC Home Electronics Service. The Japanese company will also handle manufacturing of PB-NEC Japan computers.

Fujitsu predicts 13-21 per cent drop in company's 1996 profit

Fujitsu Ltd.'s consolidated net profit is likely to fall by 10 to 20 billion yen in fiscal 1996 through March 1997, down 13 to 21 per cent year-on-year.

Amdahl Corp., a U.S. affiliate, reported a net loss of US\$283 million under fiscal first-half through June. The U.S. firm resumed its large general-use computer during the period, leading to sluggish sales and the writing off of six divisions. Amdahl is likely to post a net loss of 30 billion to 35 billion yen for the full year.

Because Fujitsu held a 47 per cent stake in Amdahl as of the end of March, the net loss will likely prove Fujitsu's net consolidated profit by 5 to 10 billion yen. The slump in prices of semiconductors, expected to be unprofitable this fiscal year, is also hitting earnings. In fiscal 1995, chips and other silicon devices earned about 85 billion yen, or almost 45 per cent of the firm's consolidated operating profit.

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- ☐ System integrator/network services consulting
- ☐ Consultant/packaging agent
- ☐ Computer maintenance/repair company
- ☐ Hardware/software reseller
- ☐ Other dual party, and other service firms

The systems your organization integrates or resells are based on the following (check all that apply)

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All questions must be answered. Incomplete entries will not be processed. The publisher reserves the right to discontinue qualification.

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Microsoft finds Anti-China Insults in Windows 95

After an exhaustive effort to create a Chinese language version of Windows 95, Microsoft Corp. said the operating system is finding insulting messages. Due to automated software editing, comments such as "Chinese heads" and "take back the mainland" are being displayed on computer monitors using the language-specific operating system.

At press time the Chinese government has not issued a complaint and Microsoft has already implemented correction procedures. Along with an Internet update on the company's World Wide Web site, Microsoft also fixed all unhelped versions of the operating system.

Current registered users in China are being sent new copies of the Chinese language Windows 95, officials said.

Microsoft's managing director for China, Bryan Nelson, said the phrases appear on utility programs called input method editors, which are used to create characters in Traditional Chinese. Those programs attempt to automatically anticipate and complete a phrase a user is trying to create.

The editing software, created by Taiwanese computers, is used to create what is called Traditional Chinese, the standard characters used most in Hong Kong and Taiwan. The Chinese version of Windows 95 is written in Simple Chinese and editing software is needed to create Traditional Chinese.

A Microsoft spokesperson said, "While this is an embarrassing situation for us, we are pleased that it has been solved quickly and easily. The fact that the Chinese government did not file a formal protest shows how strong our relationship with them is."

Taiwan chip makers will see market rebound in mid-'97

Taiwan semiconductor manufacturers can expect a rebound in the middle of next year, but the market plus may return by early 1998, analysts say.

The sector, worth about \$3.6 billion in production last year, has contracted sharply in 1996 as a result of global over-supply. Two of the largest local chip manufacturers, Winbond and Taiwan Semiconductor, have marked down their profit forecasts in recent weeks.

Capitol Securities analyst Evan Chiang said the present glut and low prices were likely to continue until the middle of next year. He said the market had rebounded to about US\$3 per megabyte from US\$2 earlier this year, but this was not likely to last for long. "The price will bottom in the middle of next year," he said, adding that the market would improve in the fourth quarter.

Meanwhile, with demand for DRAM chips unlikely to grow much — by about 10 to 15 per cent — local producers were diversifying into logic and ASIC (application-specific integrated circuit) chips.

Richard Wei of Lehman Brothers agreed the market would improve towards the middle of 1997, though he pointed to month-on-month sales improvements which showed sales had bottomed out in June and July this year.

Historically demand had been driven by the PC sector, he said. "Looking forward, the sources of demand will diversify. In the longer term, I am still very positive about this sector."

Software growth slows in Asia-Pacific

The brakes went on for U.S. personal computer software revenues in some sectors of the Asia-Pacific market in the second quarter of 1996, according to figures released by the Washington, DC based Software Publishers Association.

Revenue for SPA member companies in the quarter was US\$540 million, a rise of just four per cent on the same period of 1995, the figures showed. For the first half of 1996, revenues were up 24 per cent to US\$700 million compared with the first half of 1995.

The Q2 slowdown in growth was primarily due to negative results in three countries — Hong Kong, Singapore and Taiwan — along with growth of only two per cent in Japan. By far the region's biggest software market, the figures show. This was balanced by a better showing in Australia, the region's Number Two market for PC software, where revenues soared 25 per cent to US\$67.8 million for the quarter. Compared with many other Asia-Pacific countries, piracy rates are low in Australia.

There was also strong growth of 36 per cent in mainland China, but the market remained relatively small at US\$2.4 million for the quarter.

Japan is by far the biggest market with revenues of \$225.4 million, up two per cent for the quarter.

The SPA reported strong gains in the region for electronic mail and preinstigation software, up 35 per cent and 52 per cent respectively. "E-mail and the Internet will provide a new direction for Asian economies and spur new growth for the software industry," predicted Ken Wachs, SPA president, adding that communications was emerging as a "killer app" for the region.

The SPA is looking to boost its members' revenues in the Asia-Pacific region with anti-piracy campaigns. It recently opened an office in Australia and announced plans for an education campaign along with prosecution of persistent offenders. **30623**

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Analysts Predict Growth In Technology Market

By Thomas Klevor

There has been a strong rebound in software, semiconductor hardware and server technology stock prices — as technology market analysts are anticipating growth sales and earnings for these sectors will be much stronger than originally forecast earlier this summer. The turnaround can be attributed to this expectation that corporate and consumer demand will be strong in 1997.

This is a sudden and dramatic change of opinion in a very short period of time. Many retailers might be still be on the defensive after having to deal with inventory glut and slow sales over the past quarter. But, it is time to prepare for a very positive increase in sales. There are a number of factors developing that suggest that the industry is headed for a banner year in 1997.

On the corporate side, the rapidly growing acceptance of the Internet and the benefits of the Internet have encouraged corporations to reevaluate their strategies and budgets for technology expenditures. A case in point would be the recent 10 per cent purchase of Star — the Internet and Internet service provider, by the Bank of Nova Scotia. The Bank of Nova Scotia along with TD Bank and the National Bank will be rolling out Internet solutions for Internet consumers. These banks will be offering credit card payment processing for consumers and merchants selling goods over the Internet. This will generate a major increase in spending in technology products from the banking industry.

More significantly this removes a barrier that has stopped many companies from migrating to the Internet — uncertainty and consumer acceptance. Like or not, consumers and merchants trust the banks and are accustomed to doing business with them. This will rapidly accelerate the demand for companies to get a presence on line.

As more and more companies offer services on the Net more consumers will want to do business over the Net. The consumer will be bombarded with advertising promoting the advantages of being on-line in 1997. Cable companies will be rolling out high speed access, phone companies are offering free Internet time and now banks will be offering a multitude of services on-line. This will increase the demand for computer software and hardware.

Database and Network Management

Another growth area for the industry, a database management and network solutions. The efficient management of data and information is a key concern for all major corporations. Small increases in efficiency for large companies can translate into large cost savings and increased profits. Big companies will invest large amounts of capital in technology if reduced costs or a competitive advantage can be realized. The

ability to create access, manipulate, organize and share information from different applications and sources is the most appealing technological innovation for business today. The demand for network management software

"I think that the consumer is about to enter the market place in a big way, starting with this Christmas."

has grown more than 10 per cent in the last year and we are just seeing the tip of the iceberg.

It looks as if corporate world is committed to spending vast sums of money in the next decade but what about the general public? I think that the consumer is about to enter the market place in a big way, starting with this Christmas.

Let's look at some recent economic trends. Canada has had success with reducing government debt, inflation is at record lows, and GDP is forecast to be the best of G7 nations.

The combination of all these factors will increase

investment in Canada and therefore strengthen the Canadian dollar. In fact in the past weeks we have seen a much stronger Canadian dollar. A strong Canadian dollar creates an opportunity for interest rates to go even lower. The argument that interest can not go lower because they have not been at these levels since the late 1950s is based on emotion and not the facts. The government realizes that a low Canadian dollar is good for business and that interest not dropped over the past year, we would be looking at a much higher dollar.

In fact, the recent strength in the dollar leaves plenty of room for further rate cuts. Factor a low interest rate environment with the fact that consumers have delayed purchases of big ticket items, such as cars, major appliances, electronics and computers since the early 1990s and you have the potential for a spending boom. The pent-up demand for these products is about at the breaking point and the key fact is that all of these products have a high degree of technology components. The demand for technology components from consumers and corporations should reduce inventory turnover ratios.

There is a continuous need for computers and their components, but it can be a cyclical industry and

demand increases and decreases when older technology saturates the market and new technology comes on stream. Both business and the private sector didn't want to get caught in buying products that were soon to be outdated and passed to evaluate the latest technologies. 1996 was a year of evaluation and that the larger purchases lay on the horizon.

"Corporate and consumer demand will be strong in 1997."

The reason economic argument looks good but what are the recent statistics? Two months ago books to bill ratios of most manufacturers were less than 1:1, that is that new orders were coming

much slower than the ones being filled. The market predicted and technology stocks took a dive in mid-July.

Although some of the companies that have a lot of older technology in inventory will still be hurting for a while, the companies with the latest technology can not keep up with the demand. Back-to-back issues are headed back over 1:1 for leading edge manufacturers. This is a very positive sign and adds velocity to the macro economic trend.

I think that the coming quarter will be slow, but 1997 looks great! ☺☺☺

Thomas Klein is an investment executive with Sunlight Global. He can be reached at tom@itwishes.com.

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15-15 Trillium Corporate Centre, 21 Laurel Court West, Unit
Tel: (905) 529-9400 Fax: (916) 938-3863

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Tel: (905) 277-9834 Fax: (905) 317-0843

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http: www.ai.com

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Walkabout Highlights Differing Reseller Models

by *Gwynne Bennett*

I was recently asked to talk on the subject of buying a computer. This led me to take a list of a walkabout in Canada and California — to examine the current status of several categories of resellers.

So, I went to small, service-oriented retailers, larger supervisors-type chains, close neighbours and even scoured the Internet to see what the latest trends in retail-order sales might be. Although in the past I have engaged in similar research by posing as a customer interested in a full computer system, I did not do so this time. I identified myself as a journalist and told the people I spoke to exactly what kind of information I was seeking, and what it would be used for (in the hope that the anticipation and I could bypass the usual games that are played during the sales process). Indeed, the individuals I spoke with were very helpful. Here are descriptions of the retailers I visited and some excerpts from the conversations.

The Long-Time Retailer

This vendor has been in existence since the dawn of the personal computer age. Originally targeting the customer that, in the late 1980s, might have otherwise purchased a Radio Shack TRS-80 or Apple II series computer, the company made its first wave of sales with the PET (Personal Electronic Data) system. By the PET (Personal Electronic Data) system, by now-defunct Commodore Business Machines. The retailer moved through the many phases of the market, primarily focusing on the business- and education-oriented customer. This strategy sees its business boom with the huge market success of the Commodore 64 and 128, and enjoy a few glory years with the Amiga, as the emerging categories of desktop video and animation graphics proved to be the Amiga's forte.

When the Amiga began to lose ground to the increasingly potent PCs and Macs of the early 1990s, the company moved strongly into the IBM-compatible arena and now focuses primarily on service and afterwork.

According to a spokesperson for one such company, servicing new accounts for approximately 50 per cent of the company's business, and the service orientation means that there are four people behind the wall for every two out on the floor. Education accounts, which the company admits not so notoriously "long sells," continue to represent a significant revenue source as well.

Not surprisingly, the "walk in" retail aspect of the business is *very* important. In fact, one owner tells me he is considering giving up the storefront aspect altogether and focusing on the corporate accounts that represent the bulk of his revenue. Thus, the business model of this type of retailer is not too dissimilar to that of the value added reseller.

The lesson here is that, for small retailers (and Walk-In resellers), competitive, service must drive sales.

The Clone Retailer

The first category I visited was the clone retailer — the big time box pusher. I traveled to what might be considered the centre of the computer retailing universe, a very well-known computer retailer in San Jose, Calif. and examined its operation, and compared it with a number of the offerings of a few well-known Canadian box-buddies.

The Californian operation was, without a doubt, the biggest clone operation I have seen. I was mildly surprised to see that the illegal activity of subleasing software (taking software that is sold by the OEM for inclusion with a specific piece of hardware and selling it separately) was being practiced in full force. Not to name names, but I see this dubious activity going on at many Canadian stores, as well. (I was also slightly surprised to see what a huge array of "adult-oriented" CD-ROMs this retailer had.)

Graphics tables, removable media storage systems such as Zip, iat and PD drives, and scanners were all particularly abundant at the retailers I visited. And games hardware and software products were everywhere, as they should be at this time of year.

The Superstore

This category of retailer focuses on name brands, doesn't do much service beyond the installation of extra RAM, and is sure to offer you an extended warranty. According to the people I spoke to, sales are 50 per

cent of systems averaging about \$3,000 for the lowest end's a profit — usually of the ink-on-vanity. The average unit, one salesperson told me, falls into one of two categories.

First come the parents with the knowledge of who picks the system while the mom or dad signs the cheque — within an hour or so, they're out of there. (According to the people I spoke to, the average 1998th goes out with one major piece of software — usually a productivity software package such as an "office" suite.)

The second category is the price-sensitive shopper who has a computer paper or shopping list in hand, and is desirous to come back more than once before the deal is closed. I wrote about the psychology of this type of shopper in a previous column; I won't repeat it here.

In California, I couldn't help but wonder where are all the notebooks? I saw the big name portables, like IBM, Compaq, Toshiba, Digital A55 and Hewlett-Packard, but I saw the fewer of the seemingly ubiquitous Taiwanese "clone" notebooks than I typically see at Canadian retailers.

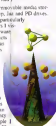
And Apple computers of any shape and size were few and far between — a surprising contrast to the last time I was in Silicon Valley, where Apples were seemingly everywhere. I did note, however, that Macintosh clones are popping up all over Silicon Valley — a phenomenon that has apparently not reached Canada in force yet. (Over Californian retailer complained he stopped selling Macs, claiming that the manufacturers started selling direct at discounted prices.)

Mail-Order

The last category I explored was the mail-order vendor. Clearly, the Internet is emerging as an important marketing tool for this class of organization, although many "kicker" checks" awards by major magazines continues to be the primary marketing focus.

More on Internet marketing next time. **XXX**

Gwynne Bennett is the managing editor of The Computer Paper, and is a former computer retailer. Based in Vancouver, he can be reached at gwynne@compa.



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Sidus Systems appoints new CFO

Sidus Systems Inc. has appointed Rag Thiesen as its new chief financial officer.

He will lead all financial functions from the company vendor's head office in Richmond Hill, Ont.

Thiesen brings more than 15 years of financial management experience to the job.

For the past few years, Thiesen was director of finance for Tecon Electronics, a satellite services delivery company.

Thiesen received a Bachelor of Mathematics at the University of Waterloo in 1981 and received his Chartered Accountancy designation from the Canadian Institute of Chartered Accountants in 1982.

Lotus Development Corp. names president

Lotus Development Corp. has announced Jeff Popejoy has been named company president.

Since October 1995, Popejoy has been chief operating officer at Lotus, sharing the office of president with Michael Zisman, who was CEO.

Zisman issued a memo to employees saying personal obligations would require him to change his role at the company, and assume a new role as executive vice-president for strategy. In his new job Zisman will advise Popejoy on strategy, and will consult with customers and represent Lotus externally.

Obituary

Seymour Cray dead at 71

(ND) — Computer pioneer Seymour Cray, considered by many to be the father of supercomputing, has died as a result of injuries received in a traffic accident.



Cray founded Minnesota-based Cray Research in 1972, a company that is still one of the top supercomputer makers in the world.

When the company decided his plan to use germanium arsenide processors instead of the more conventional silicon wafers was too risky, he left Cray Research to form Cray Computer Corp. Cray Research received nearly \$99 million in Cray's death. Later, Cray Research sold its stake in Cray Computer.

The new Colorado Springs company ran into difficulties when it could not meet production milestones and lost its only customer, the National Center for Atmospheric Research in Boulder, Co.

Cray Computer eventually ran out of money before Seymour Cray could bring his dream to the world, and the company declared bankruptcy in March 1993.

The company's name was dropped of in late 1995. But Cray had already moved on to his next dream. He formed SRC Computer earlier this year but its usual reluctance to give interviews had revealed little of his reason for SRC. He did say recently that the company might build computers.

Reporters often described Cray as shy and reclusive, but people close to him saw another man. In an interview following Cray's accident, Cray Research president and CEO Bob Towell spoke of his friend. "He had a great sense of humor and a tremendous sparkle in his eyes. He had a tremendous wit, and was a very funny person in small groups."

Seymour Cray was born in Wisconsin on Sept. 28, 1925. He received a master's degree in applied mathematics from the University of Minnesota in 1951. He helped Ford Control Data Corp. in 1957 and remained there until 1972 when he left CDC to found Cray Research.

Cray founded the Cray 1, a computer 10 times as fast as anything then available, in 1976. He is survived by his wife, son and daughter, sister and five grandchildren. He served in the army during World War II.

Both Zisman and Popejoy will continue to report to John M. Thompson, senior vice-president and group executive for IBM's Software Group.

Bay Networks' Ludwick steps down as CEO

(NB) — The CEO of Bay Networks Inc. has resigned, as the company posted a 91 per cent drop in quarterly earnings.

The Santa Clara, Calif., networking supplier earned US\$5.6 million, or 3 cents per share, in the first fiscal quarter, vs. sales of US\$52.2 million. In the year-ago quarter income was US\$63 million, or 32 cents per share, on sales of US\$457 million. The figures for this quarter include a US\$42.6 million charge for the acquisition of LANCity Corp. in September. Without the acquisition charges, Bay Networks would have earned US\$4.8 million, or 29 cents per share for the quarter. But that figure is still about 5 cents below what analysts had predicted.

The company did not list a specific reason for the resignation of CEO and president Andrew Ludwick, who is one of the largest persons of shareholders at Bay and who will remain on the board of directors. He will be replaced temporarily by chairman Paul Severino while a search is conducted.

Ludwick was named CEO in 1994, when the company was formed by the merger of WorldPac Communications Inc. and SynOptics Communications Inc.

In a statement, Ludwick said Bay had reached a "key phase of our integration as a merged company.... The board has agreed with my recommendation that now is the appropriate point in Bay Networks' progress to make this change and prepare the way for our future." **NDG**

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Collected Numbers

IBM And Packard Bell Show High PC-Attached Sales

According to a study from Computer Intelligence, IBM and Packard Bell are the PC manufacturers most likely to sell a branded monitor along with a branded PC in the channel.

CI's results also show that 14-inch monitors made up the largest part of Packard Bell monitors purchased with Packard Bell PCs, "reflecting the price-consciousness and expectations of the typical Packard Bell buyer," said the study. Packard Bell's typical average monitor selling price was US\$238

compared with Compaq at US\$465. IBM at US\$328 (almost half of IBM's monitors are 13-inch, the remainder are 15-inch) and NEC at US\$626.

Interestingly, while the firm says Compaq is the channel leader in overall monitor sales, the study shows it sells from more stores attached to its PCs than IBM or Packard Bell.

That same study also shows that, by category, monitors and memory upgrades are the most popular channel purchases.



The findings came from a quarterly study that tracks U.S. sales channel performance and trends for the major types of after-market PC-related products purchased by corporate and consumer buyers.

Voice your Opinion! Reader Poll

With tight budgets, every group has to count. So staying on top of the fast-changing technology is a challenge in the best of times. Meanwhile, vendors are selling a range of training and certification programs, encouraging students to read their stuff for outside training.

Which most accurately reflect your view and practice at your place of business? (Choose one.)

- ☐ Vendor-sponsored training and certification is very important, and we're willing to pay for that.
- ☐ We take time internally to train our staff.
- ☐ Self-training is the responsibility of each individual employee.

Last issue we asked:

By the year 2000 do you expect to see videoconferencing as a significant selling opportunity to business customers?

Respondents said:

- To business customers:
 - Yes (58 per cent), No (20 per cent)
- To home customers:
 - Yes (58 per cent), No (20 per cent)

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PC Retail Sales Will Remain Strong, Says Report

(NB) — As overall PC sales begin to moderate, research from ARS Corp. is predicting increased market share for the retail channels. The report predicts overall PC sales, as opposed to shipments, are expected to increase by 11.7 per cent in 1997, while the retail channel is forecast to experience a 17 per cent sales growth.

The report is the result of analysis and research done by Egi Johnson, publisher and author of the *Computer Industry Advisor*.

The report covers sales for the entire PC industry, but highlights the growth in the retail market. In 1997, the retail channel will account for 40.5 per cent of the 24.7 million units sold in the U.S. market, the study said.

The report predicts that the computer retail category of computer superstores, consumer electronics superstores and office products superstores, will capture all other channel categories with over 20 per cent gain in unit sales during 1997.

ARS's survey estimates that computer superstores will see an estimated 20.3 percent growth in sales. Office product superstores should see a 21.7 per cent increase, while consumer electronics superstores will have an estimated 21.5 per cent increase. Other mass merchants will see estimated growth of 13.3 per cent, warehouse clubs should come in with a 12.8 per cent gain, and consumer electronics stores will be expected to increase 5.6 per cent, the study said. **8863**



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